
DICKINSON COLLEGE



1984-1985 CATALOGUE

CARLISLE · PENNSYLVANIA

Accreditation

The principal accrediting agency for the College is the Middle States Association of Colleges and Secondary Schools. Other agencies accrediting or recognizing Dickinson are the University Senate of the United Methodist Church, the Pennsylvania Department of Education, the University of the State of New York, and The American Chemical Society.

Directions for Correspondence

General College Policy

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Academic Information

George Allan, *Dean of the College*

Admissions

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Business and Financial Affairs

James M. Nicholson, *Treasurer*

Communications and Development

Robert O. White, *Executive Director*

Continuing Education, Summer School

Peggy Garrett, *Director*

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Off-Campus Study

John S. Henderson, *Director*

Records and Transcripts

Ronald E. Doernbach, *Registrar*

Student Affairs

Leonard S. Goldberg, *Dean*

College Phone Number: 717-243-5121

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DICKINSON COLLEGE

Founded: 1773, one of the 14 colonial colleges

Curriculum: a four-year program of study in the liberal arts. The academic calendar consists of fall and spring semesters and an optional summer term.

Degrees granted: Bachelor of Arts, Bachelor of Science

Major fields of study: American studies, anthropology, biology, chemistry, computer science, economics, English, fine arts, French, geology, German, Greek, history, international studies, Judaic studies, Latin, mathematics, music, philosophy, physics, policy and management studies, political science, psychology, religion, Russian, Russian and soviet area studies, sociology, Spanish, studies in theatre and dramatic literature.

Special programs: comparative civilizations, environmental studies, financial and business analysis, Italian studies, Latin American studies, military science (ROTC), secondary teaching certification

Special options: pre-professional preparation: law, medicine, business, binary engineering; double majors, self-developed majors, tutorial major, departmental honors, independent study, independent research; internships; Nisbet scholars program; study-abroad programs.

Number of faculty: teaching faculty — 114 (90 percent earned Ph.D. or other highest degree); academic support faculty — 26

Student-faculty ratio: 12:1

Average class size: 22 students per class; 86 percent of all offerings are conducted with 30 or fewer students; 55 percent of all offerings have fewer than 15 students. Of the 514 offerings in the fall 1983 semester, only 12 had more than 50 students.

Location: Carlisle, founded 1756, is a pre-revolutionary town of 20,000 people located in the Cumberland Valley of central Pennsylvania. Interstate highway, rail, and air transportation link all major east-coast cities. Driving times to: Harrisburg, 1/2 hour; Baltimore, 2 hours; Washington, D.C., 2 1/2 hours; Philadelphia, 2 1/2 hours; Pittsburgh, 4 hours; New York, 4 hours.

Size of campus: 55-acre main campus, 65-acre recreation area, and a 3500-acre wildlife sanctuary

Library facilities: 365,000 volumes, including 82,000 government documents; 1184 current periodicals; 122,400 sheets of microfiche; 6500 reels of microfilm; 6400 music recording

Computer facilities: Digital Equipment Corporation VAX-11/780 and PDP 11/70 computers, over 60 student terminals, PASCAL, BASIC, FORTRAN, SPSS, DBMS, Minitab, word processing, and electronic mail.

Residence Halls: 37 facilities housing between two and 202 students. Housing options include male, female, and coed dormitories. Some housing is available for students with special interests such as foreign languages and the arts and for social interest groups.

Student enrollment: 1776 on campus plus 158 in various domestic and international study programs. Students come from 32 states, two U.S. territories, and 13 foreign countries.

Student Financial Aid: Over 70 percent of all students receive financial assistance in some form. Approximately 45 percent receive grant aid from the college.

College Financial Data: Physical Plant Value (as of 6/30/83), \$40,392,622; Total Endowment Value (as of 6/30/83), \$23,799,177; Operating Budget for 1983-1984 academic year, \$24,289,800.

HISTORY OF THE COLLEGE

The citizens of frontier Carlisle founded a grammar school in 1773 on land donated by Thomas and John Penn, but classes were temporarily suspended when the first schoolmaster went off to serve at Valley Forge. With an optimism buoyed by colonial independence, Philadelphia physician Benjamin Rush argued that the fledgling grammar school should be transformed into a college that would be "a source of light and knowledge to the western parts of the United States," to the wilderness lands stretching west from the Susquehanna. John Dickinson, the governor of Pennsylvania and drafter of the Articles of Confederation, was persuaded by this argument, and on September 9, 1783, a charter was approved by the "Representatives of the Freemen of the Commonwealth of Pennsylvania." The new college, founded by Presbyterians but with an independent Board of Trustees, was dedicated to "the instruction of Youth in the learned languages" and in the "useful arts, Sciences, and Literature."

Charles Nisbet, a Calvinist minister from Scotland, was the first Principal of the College. His insistence on rationality and high standards of learning set the tone for Dickinson in its early years, and encouraged the founding of two of the nation's oldest continuing literary societies, the Belles Lettres in 1786 and the Union Philosophical in 1789. Chief Justice Roger Brooke Taney and President James Buchanan were among their early student members. The College's first permanent building, Old West, was completed in 1804. It was designed by Benjamin Latrobe, the architect of the Capitol building in Washington, and was crowned by a weathervane replica of a classical sea deity. This deity was rendered by a local coppersmith in the form of a buxom mermaid which has ever since been one of the distinctive symbols of this otherwise very inland campus.



In the early 19th century the dour traditionalism of President Atwater clashed with the Jeffersonian radicalism of Thomas Cooper, who made it possible for the College to purchase his late friend Joseph Priestley's scientific apparatus. Because of these controversies, Dickinson fell on hard times until 1834 when it came under the sponsorship of Methodists, regaining educational vitality through the leadership of its new president, John Price Durbin. During the Civil War, Dickinson sent her sons to fight on both sides, hopeful "that college loyalties would bind where civil strife separated."

In the years after the war Dickinson leavened its abiding commitment to liberal education

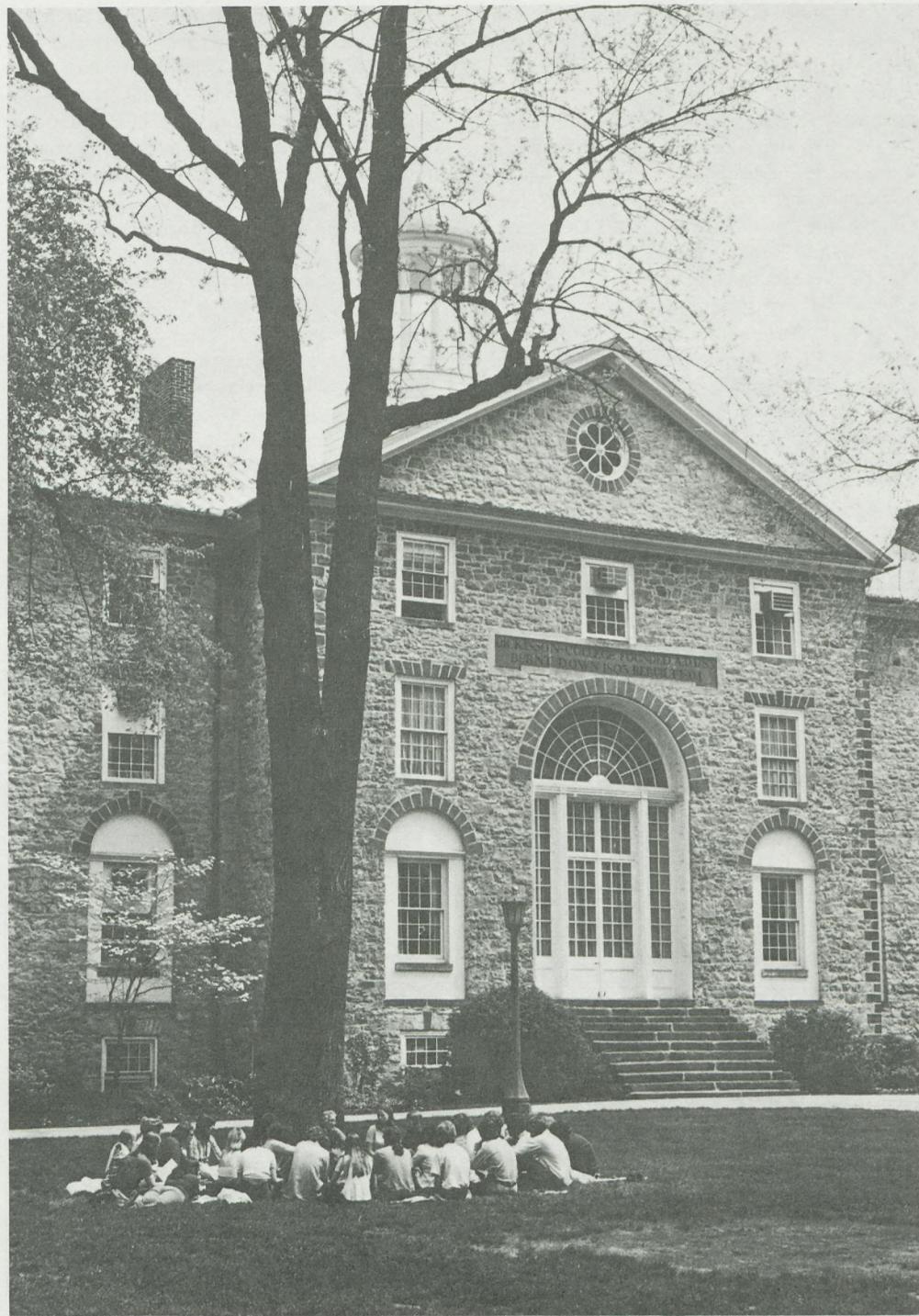
with a number of interesting innovations. The College became coeducational in 1884 in response to the courage of its first woman student, Zatae Longsdorf. The law department, inaugurated in 1833, became the Dickinson School of Law in 1890 and, since 1917, independent from the College. Dickinson introduced elective courses for its students, and under President George Reed fashioned for a time a Department of Peace and Public Service. Following World War I James Henry Morgan presided over a new educational experiment which required students to graduate with a major field of concentration as a part of their general baccalaureate.

Since 1960, under the leadership of Presidents Howard L. Rubendall and Samuel Alston Banks, Dickinson College has developed a balanced and diverse curriculum of the liberal arts.

Strong disciplinary programs have cooperated in fostering a range of interdisciplinary and area studies opportunities. This in turn has led to strengths in international education and pre-professional preparation. The curriculum has been further enriched by such programs as freshman seminars, internships, and the Nisbet Scholars program.

Dickinson's gray-walled campus has always served as a park and playing field for students, its history punctuated by major fires, by the bivouac of a Confederate Army in 1863, by the parade drill of soldiers in 1917 and 1942. For a time professors and students cultivated cabbages and onions there. Today classes are often held on the campus grass in spring and summer weather, and there also Commencement ceremonies occur by "the old stone steps" of Old West.



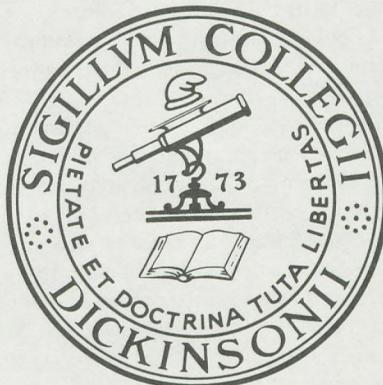


1984-1985 Bulletin

DICKINSON COLLEGE

Carlisle, Pennsylvania 17013

The distinctive Dickinson College seal was devised and recommended by John Dickinson and Dr. Benjamin Rush at a board of trustees meeting in April, 1784. Rush conceived the symbolic design: a liberty cap above a telescope, which is in turn above an open book; and Dickinson provided the motto: *Pietate et doctrina tuta libertas*. One translation is "Liberty is made safe by piety and learning." A Rush letter to Dickinson in June, 1785 refers to the College as the "bulwark of liberty, religion and learning."



Annual Catalogue Issue

Volume LXXIV

Using This Catalogue

Welcome to the Dickinson College catalogue. This publication is designed to set forth in detail and as clearly as possible the resources which the College offers to its students. We believe that the catalogue is essential reading because it reveals the philosophy, the programs, and the character of the College and its people. It will help you gain a better understanding of Dickinson by presenting our point of view concerning the importance of the liberal arts in higher education, as well as the programs—academic and residential—that Dickinson has developed. It is a discussion of what we are, what we believe, and what we support.

If you are a prospective applicant to Dickinson, you will want to pay particular attention to the General Information section, where you will learn about the Dickinson educational experience, including the College's commitment to the liberal arts tradition, an overview of our curriculum, and an introduction to our residential environment. Information on admissions, expenses, and financial aid also is found there.

Information that you will need to build a four-year program of study is grouped together under the Academic Program section. The introductory essay describes what it is like to study at Dickinson, the depth, breadth, and flexibility we offer within our liberal arts program. Information on requirements for the degree will show you the shape of your educational experience, while the departmental listings will give you the specific details. Each listing includes names and biographic statements of all members of the faculty as of April 11, 1984, the title and description of all courses, and requirements for a major or minor in each area. You should pay particular attention to the flexibility provided by our special approaches to study and our special programs, including several nontraditional options such as independent study and research, intern-

ships, special majors, study abroad, and other off-campus study opportunities. Cocurricular activities and academic resources are described so that you may understand the contribution they make to the educational experience. There are many cross references, but if you cannot find a particular program, please refer to the index to see if it is offered under a slightly different name.

The section on Living and Learning on Campus will give you a feel for what living on campus is like. In addition to extensive faculty advising and preprofessional counseling programs, there is an endless variety of cultural and artistic programs and extracurricular activities. Opportunities for involvement in student government are found here as well as a description of our campus itself.

A complete list of teaching faculty, academic professionals, and other college personnel is found in the Reference Section. Beginning on page 217 is an index, followed by maps of the campus and of the surrounding area. A college calendar is included at the end.

Further information on programs and options contained in this catalogue, as well as a viewbook and a campus guide, may be obtained from the Office of Admissions. Several brochures are also available containing more detailed information about specific subjects such as financial aid, transfer and minority students, off-campus study, what recent graduates are doing, and individual academic departments. The exact schedule of fall and spring classes is contained in the Master Schedule of Classes booklet published by the Registrar's Office prior to the beginning of each semester and distributed to students on campus. The booklet may also be consulted in the Office of Admissions. The summer schedule of courses is given separately in the Summer School Catalogue published each spring.

The living-learning experience that Dickinson makes available to its students is impressive. It is based upon the premise that the students will have the initiative to utilize fully the resources provided by the College's programs, its facilities, and—most important—its people.

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GENERAL INFORMATION

Dickinson College: An Overview

The Liberal Arts Tradition

What you first notice about Dickinson College when you step onto the campus are the beautiful old stone buildings and the tall shade trees. What you soon discover, however, is the College's strong liberal arts tradition. For over 200 years students have come to Dickinson for one enduring purpose — to gain a quality liberal arts education. Nurtured by their college experience, Dickinson graduates have gone on to enjoy personally satisfying and professionally useful lives.

At Dickinson, we believe in academic breadth. Every area of study essential to the liberal arts is represented in the curriculum, and through the distribution requirements students explore a wide variety of academic offerings. Two hundred years ago, in the 1780s, the essential fields of study were Latin, geography, and moral philosophy. Now in the 1980s, students may select courses from two mathematical sciences and four laboratory sciences; from six modern and three classical languages; from philosophy, religion, literature, and four forms of the arts; and from six different social sciences. In addition to these fundamental disciplines, students may also undertake a diverse range of interdisciplinary study.

Dickinson is committed to balance and quality across its curriculum. Students will find, for instance, that both computer science and Russian literature are thriving at Dickinson, that studio art and experimental psychology are equally essential to the strength of our course offerings. It is healthy and natural for a student's interests to change from the freshman to senior year, and Dickinson firmly believes that students

should be able to alter their academic focus without lessening the overall quality of their academic program. For this reason, students have access to 30 majors or have the opportunity with their faculty adviser to develop their own major.

The foundation for a good education includes exposure to a full range of basic fields of study and the ability to study any of these fields in depth. For the first 100 years of Dickinson's existence, however, students did not declare a major; there weren't any. A general course of study was required of all students. Today, studying in a major field has become an important way for students to acquire depth and sophistication in at least one academic discipline. The Dickinson faculty encourages students to develop their powers of imagination and initiative in the search for relationships which link all areas of study. Some students respond by choosing to major in more than one area, by participating in interdisciplinary study programs, or by selecting a number of courses outside their major area of concentration. Through these choices, students begin to recognize how the different disciplines "fit" together. They also begin to realize that the world is not neatly divided into the natural sciences, the humanities, the social sciences, and languages.

In the truest sense, a liberal arts education is more than just the sum of all its parts. It is more than earning a degree by completing studies in a major area and taking courses in a variety of disciplines. At Dickinson, we encourage our students to learn how to learn, so that the limits of their knowledge are always being tested by their willingness to ask fresh questions and to search for more adequate answers. It is this questioning process which is at the heart of the liberal arts experience. The learning process developed through liberal arts studies can serve a student for a lifetime.

Some Distinctive Dimensions

The Dickinson curriculum has grown, developed, and evolved over our two centuries of history. Because the traditional academic disciplines have always provided a solid foundation for innovation, three broadly integrative dimen-

sions have emerged to give Dickinson's academic program a distinct character: the international scope of the academic programs, the cohesive nature of cross disciplinary studies, and the emphasis on developing basic learning skills.

The first dimension is international education. Technical advances over the last 50 years have made it all but impossible for a country or an individual to remain isolated from world events. At Dickinson, students expand their intellectual horizons by studying a classical or modern European language and its culture through at least the intermediate level. They enroll in comparative civilizations courses to extend these horizons beyond the Western world and achieve a global perspective. Students also enhance their cultural awareness by becoming more familiar with their own cultural background. The American studies major and a broad range of courses focusing on the American heritage provide this opportunity for self-understanding. It is appropriate for Dickinson, one of the colonial colleges, to define international education in terms of a dialogue between the study of American culture and a study of the world's cultures.

Students further enrich their understanding of various cultures by participating in a wide range of approved international study programs. One-fourth of our students study in a foreign country for one or two semesters. Dickinson sponsors its own programs in Italy, Spain, France, Germany, and England. The College also actively participates in respected international study programs such as those sponsored by the Institute for European Studies. In addition, a number of majors and certification programs are provided by the College in a variety of cultural-geographic areas. Dickinson graduates the largest number of language majors of any private college in Pennsylvania. An enhanced understanding of other people and other cultures is the goal of these programs. The College feels that it is important for students to gain a global awareness so that they may become more effective and aware citizens.

A second distinctive dimension to our academic program is the way the College seeks to

bridge two intellectual gaps in our society. One is the split between the sciences and the humanities; the other is the gulf which separates pre-professional training from the general education needed to become mature adults.

At Dickinson, students readily move back and forth between the sciences and humanities. It is not surprising to find students double-majoring in biology and philosophy, English and economics, or music and physics. Most of our professors are themselves liberally educated and so encourage and practice this continual crossing of departmental boundaries.

Joint scientific and humanistic perspective also find avenues of expression outside the classroom. The themes of our most recent Public Affairs Symposiums, "Sex Roles at the Cross-roads" and "Human Rights/Humans Wronged," discussed both the scientific bases and social effects of these topics. Dickinson strives to educate people who will be at home in both the laboratory and the arena of public debate, who know the relevant facts, and who have a strong sense of appropriate values. An ideal Dickinson student knows well both Newton's laws of motion and Shakespeare's tragedies.

The College believes that the preparations necessary for doctors and business executives, for lawyers and teachers, for journalists and scientists, are all interconnected. We strive to develop a foundation of skills, knowledge, and attitudes in students which will help them become informed and effective human beings.

Liberal arts graduates should be well-rounded individuals who appreciate the varieties of human knowledge and have a range of interests which extend beyond those required for any particular job. This general foundation enables our graduates to change their careers as they mature, to adapt more readily to changes in society, and to take the initiative in shaping such changes.

More than half of our graduates pursue further study. At Dickinson, as many chemistry majors as biology majors go on to medical school. Nearly half of those who study for an MBA come from majors other than economics. Our law school applicants major in many different subjects, with history, English, and political

science being the most popular.

A third distinctive dimension of Dickinson's curriculum is its emphasis on basic learning skills. Dickinson students are expected to write well and to think clearly. Geology reports should be as well-written as English literature papers. A line of reasoning in art history should be as logically reliable as an argument in mathematics or an analysis in anthropology. The College utilizes research papers and essay exams in all three academic divisions of study in order to encourage the development of these skills.

Improvement in other basic skills is also valued at Dickinson. Small classes, including freshman seminars and senior-level seminars, emphasize the skills of good conversation. Students should be able to listen well, to speak effectively, and to be sensitive to the dynamics of a group. Whether they are participants in a sociology class simulation, an informal discussion in a religion course, or a field trip for environmental science, students should acquire the ability to develop ideas in dialogue with others, to contrib-

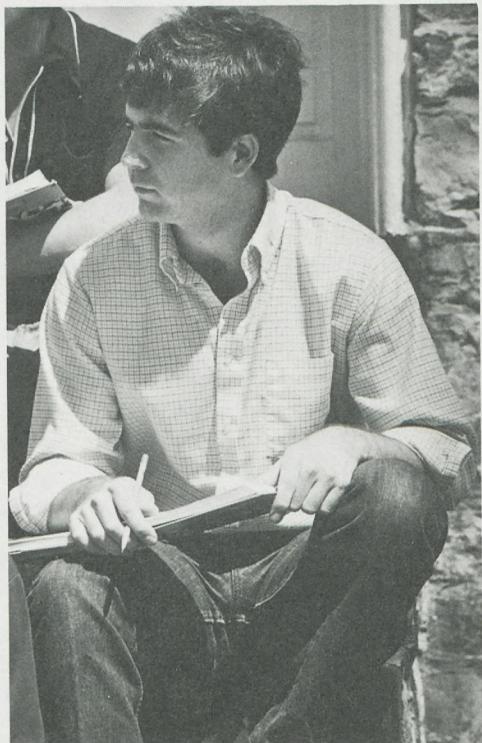
ute creatively to a discussion or line of inquiry, and to know how to bring it to a timely resolution. Events such as Wednesday noon student concerts, end-of-semester studio art shows, and dramatic readings at the Arts House also encourage students to gain a sense of social and emotional maturity.

Some of these basic skills are nurtured in specific courses such as introductory language, beginning computer science, logic, or writing seminars. These are then reinforced as an important feature of intermediate and advanced courses throughout the academic program. Other skills are encouraged by cocurricular activities such as the Mermaid Players or the orchestra, choir, and Collegium Musicum. Dickinson's efforts in this regard are richly varied and continuously changing in response to the changing needs of students.

The Learning Environment

Dickinson strives to provide a residential environment in which students can learn and grow on a full-time basis. The College believes that learning does not cease when a student closes the classroom door; it continues in non-classroom settings and activities. Dickinson has a longstanding tradition in this regard. It was founded in 1773 as a residential institution. Today nearly all Dickinson students live in one of our 17 residence halls or in one of a cluster of traditional homes owned by the College.

Residential facilities are seen as an integral part of the Dickinson learning environment. Informal interactions among roommates and hallmates are opportunities for students to learn more about themselves and about others. "Special interest" groups such as the language houses or the Arts House provide a direct link between the classroom and the dormitory. In all residence settings, students have the opportunity to learn about citizenship and responsibility by developing housing regulations, determining quiet hours for study, and structuring residence governmental systems. At Dickinson, students are encouraged to develop mature interests, skills, and attitudes. They are held accountable for adult standards of behavior as a vital part of this growth process. Dickinson's goal is a resi-



dential environment which complements classroom studies and enhances the development of a student's sense of maturity and responsibility.

The extracurricular and cocurricular activities provided at Dickinson also present students with opportunities for individual development and growth. Students learn the give and take of the political process through submitting funding proposals to the Student Senate for allocations to support clubs or other organizations. Budding journalists learn the pressures of deadlines and the responsibility of being accountable for their work by writing for the *Dickinsonian*. Students who participate in the debate society refine skills which they can use both in the classroom and in later careers. The prebusiness, prehealth, prejournalism, and prelaw societies enable students to grasp more fully the nature of these professions and to gain insights into how best to prepare for the careers they provide. Beyond the development of specific skills and knowledge, students also learn the general skills of setting priorities and choosing involvements wisely.

Dickinson students are ingenious at devising their own clubs, organizations, and social activities. When 1700 different individuals begin to interact there are numerous possibilities for creativity. Concerts, films, lectures, fraternities, sororities, dance troupes, and language clubs are only a few of the many activities and groups in which students choose to participate. Drama groups, music ensembles, and sports teams provide students with the opportunity to discover new interests, to develop new skills, and to understand more fully their individual strengths and weaknesses. Activities at Dickinson are designed to complement classroom studies and not to conflict with them. The College believes that selective involvement in a few of these areas will enhance and reinforce academic studies. The lure of excellence is contagious and it finds expression throughout Dickinson's residential learning environment.

Closing Thoughts

What then, is the Dickinson educational experience? The ideas and goals expressed by the

founders of Dickinson in their design of a College seal and the choice of a College motto provide an appropriate symbol for the education we strive to provide our students. The Dickinson College seal contains three items — a book of scriptures, a telescope, and a liberty cap.

The telescope symbolizes learning. Students who graduate from Dickinson have been introduced to the world's intellectual and cultural heritage, have befriended its great minds, learned its methods of problem solving, become acquainted with its artistic and societal achievements.

The liberty cap symbolizes the ideals of political freedom and responsibility. After graduation students will have the duties of citizenship to bear and opportunities for leadership to realize, challenges for which a Dickinson education should be a useful preparation.

The book of scriptures symbolizes moral commitment and faith. Neither past or future learning nor past or future leadership roles will be worthy of students unless they have acquired a sense of right and wrong and have a mature commitment to high standards of personal and social justice.

The College motto, inscribed within the seal, summarizes these symbols in a phrase: *Pietate et doctrina tuta libertas*; liberty is made safe by morality and learning.

A Dickinson liberal arts education is thus a beginning rather than an end. Students are encouraged to develop a thirst for lifetime learning which opens them to the riches of human knowledge and prepares them to face new challenges and to welcome now unrealized possibilities. We believe that the educational experiences available at Dickinson provide a solid foundation for the rest of a student's life.

Admissions

Freshman and Transfer Admission

Colleges are like people; they are all different from each other. No one college is right for every individual and no one person is right for every college. The admissions staff seeks to identify students who will benefit from the educational programs provided at Dickinson and whose goals are in harmony with the aims of a liberal arts education. Aware that students from various social, ethnic, and economic backgrounds contribute to the richness of campus life, Dickinson welcomes applications for admission from a diverse group of persons. The College is looking for students who will contribute to Dickinson and for whom Dickinson is an appropriate college choice.

Professional admissions people, who are sensitive to the character of the Dickinson community and the qualifications and needs of applicants, make the admissions decisions at Dickinson. While computers are useful for research and the storage of data, they have no place in determining who is finally selected. People make decisions about people at Dickinson. We seek to understand each applicant as a unique person with individual characteristics, background, interests, talents, needs, goals, and preparation for college. There is no automatic formula that guarantees admission to Dickinson although all accepted candidates must be well-qualified. Each person's application for admission and credentials are read a minimum of three times by the admissions staff before a final decision is made. This is done in order to assure fairness both to the applicant and to the College. Everything that a student chooses to submit to us or which we require for consideration is reviewed carefully.

Admission to Dickinson is highly competitive. Dickinson students are intelligent, well-prepared, and have strong positive personal characteristics. Many factors are considered both individually and as a whole in the admissions process in order to gain a comprehensive

impression of the applicant's personal and academic qualifications for Dickinson. The primary credentials are (1) the secondary school academic record, (2) SAT or ACT scores, (3) the official recommendation of one's secondary school guidance counselor, college adviser, headmaster, or principal, (4) the application form itself, including the essay, and (5) extracurricular activities.

The secondary school record is important. We look at grades, the quality of courses taken in order to achieve those grades, the class rank and how it is compiled (is the student given recognition for taking the tougher courses offered by his or her school?), and the quality of the school from which the student is applying. Dickinson admissions representatives visit over 600 secondary schools throughout the United States each year in order to gain a more comprehensive appreciation of each school and its people. In predicting academic success in college, we believe that there is no substitute for high grades earned in solid courses from a good secondary school. Such academic performance measures not only academic preparation for college but also the student's motivation, study habits, self-discipline, and desire to learn.

SAT's and other standardized test scores are a strong factor, although definitely not the only factor, in the admissions process. We think that the SAT's generally are effective in measuring aptitude, but they do not measure motivation to learn, personal character, or citizenship qualities, all of which are also important factors in our admissions decisions.

Official recommendations from the applicant's secondary school are prominent in the selection procedures. Additional letters of recommendation also are considered in our review process although they are not required. Dickinson seeks to create a sense of community in which the students are active participants. The admissions staff has a responsibility to admit students who will make positive contributions to that community. We seek people who have demonstrated their willingness to participate in school, family, or community activities. We look for students who have made a commitment to something for which they have had to assume

responsibility and from which they have grown. What is important is not the number of activities with which an applicant has been involved but rather the quality of participation in them.

As a liberal arts college, Dickinson is committed to breadth as well as depth of quality in its curriculum. We believe that a student should have the opportunity to explore different aspects of the curriculum before declaring a major. We do not expect our applicants, as seniors in high school, to know precisely what they want to major in or what they plan to do with the rest of their lives. Learning how to make such choices wisely is what Dickinson's four-year liberal arts education is all about.

Because colleges are different from each other, we believe that it is very important for prospective students to visit Dickinson in order to acquire an impression of what our philosophy of education, sense of community, and people are like. A personal interview is seen as an opportunity for the prospective student to gain information about the Dickinson community and insight into it. The interview rarely is used as a screening device in the selection process.

The policy of the College is to enroll a freshman class by selecting the most qualified candidates in its applicant pool. Dickinson College does not discriminate against applicants on the basis of race, religion, sex, color, handicap, or national or ethnic origin.

Dickinson College is a member of the National Association of College Admissions Counselors and subscribes to its Statement of Principles of Good Practice.

Admissions Requirements

Freshman Applicants

A completed application form, including the secondary school report form to be completed by the guidance counselor, college adviser, headmaster, or principal, must be sent to the admissions office by the appropriate deadline (see chart on page 17). A non-refundable \$25 application fee is required at the time the application is submitted.

The Minimum Requirement for Entrance is the satisfactory completion of a secondary school

program of at least 16 units, including four units of English, two (preferably three) units of one foreign language, two units of natural science, two units of social science, and two (preferably three) units of college preparatory mathematics. The remaining units should be within these academic areas. Most applicants offer more than the minimal requirements.

Standardized Test Requirements

The Scholastic Aptitude Test (SAT) or the American College Test (ACT) is required of all applicants. Results of either test taken in the junior year must be submitted for Early Decision. All admissions candidates taking either test in their senior year should take them in October, November, December, or no later than January.

College Board Achievement Test. Achievement test scores are not required for admission to Dickinson. If students wish to satisfy a prerequisite requirement or place into a higher level course (such as foreign language), they should plan to take an achievement test or Advanced Placement Test in the appropriate area. On the basis of this testing, the student will then be placed at the appropriate course level. Those students interested in majoring in the sciences or in math are encouraged to take either the Math Level I or Math Level II College Board Achievement Test in addition to other appropriate achievement tests.

Achievement test scores submitted prior to the evaluation of a person's application may support the application in cases where strong achievement potential is suggested, but in no case will these test results adversely affect the final decision on the application. For these reasons many students may wish to take selected College Board Achievement Tests.

Applications and schedules for these examinations may be obtained by writing to the College Entrance Examination Board, P.O. Box 592, Princeton, New Jersey 08540.

Foreign Student Admission

Dickinson College encourages those foreign students to apply for admission who have successfully completed their secondary school requirements and whose knowledge of the English

language (as indicated by their score on the TOEFL examination—the Test of English as a Foreign Language) is of sufficient quality to demonstrate capability in pursuing a collegiate program. Most accepted foreign students have a minimum score of 600 on the TOEFL.

The College maintains a small foreign student financial aid budget to assist foreign students who wish to study as four-year degree candidates. In most cases, if a prospective student and his/her family are not able to cover the full costs of attending Dickinson, we must discourage the person's application.

Dickinson also utilizes the limited foreign student financial aid budget to assist those students who will be studying at the College as one year non-degree guest students. Most one year non-degree guest students apply to Dickinson through agencies such as the Institute of International Education (IIE).

Advanced Placement Program

A student who achieves a score of "4" or "5" on a College Entrance Examination Board Advanced Placement Test will be granted credit for college work in the appropriate department, and will receive placement at the discretion of the department.

A student who achieves a score of "3" on the Advanced Placement Test may receive, at the discretion of the appropriate department, credit and/or placement. Credit granted in accordance with the above statements of policy will satisfy the corresponding graduation or distribution requirements. In addition, such course credit will normally satisfy a prerequisite requirement in that department for advanced work.

Interview

A visit to the campus for an interview or information session is helpful to prospective students in gaining a clearer understanding of life and study at Dickinson.

Personal interviews may be scheduled with an admissions staff representative between 9:00 a.m. and 3:15 p.m. Monday through Friday from April through December.

During January, personal interviews may be

scheduled on each Monday, Wednesday, or Friday, and in February on each Monday and Friday. During March, personal interviews can be given only each Friday.

Students are welcome to attend group information sessions which are conducted by professional staff members on Saturday at 10:30 a.m., September through April and on Monday, Wednesday, and Friday at 1:30 p.m., August through April. The Admissions Office is closed for some legal holidays and/or college vacations.

Please arrive no later than 15 minutes before the scheduled start of the group information session so that the session may begin promptly.

All appointments should be made well in advance of a planned visit by writing the admissions office or calling 717-245-1231.

Early Decision Plans I and II

The College actively encourages early decision applications from students for whom Dickinson is clearly their first-choice college.

In recognition of the differing calendars of decision-making on the part of prospective students, Dickinson offers two early decision plans. Under EDP I, the more traditional timetable, students who apply by December 15 will be informed of our decision by January 1. EDP II enables students who decide mid-year that Dickinson is their first choice to file early decision applications between December 15 and February 1 and then to hear by February 15. More details will be found on the chart on page 17.

Early decision is a service to realistic candidates because:

1. Preference in the admissions process is given to early decision candidates if they are qualified.
2. The candidates learn early in their college planning if they have been admitted to the college of their choice.
3. All applicants not accepted under either plan will be reconsidered automatically on an equal basis with the regular applicants for admission and ultimately may be accepted for admission.
4. Dickinson has a strong record of meeting the full need of well over 95 percent of all ac-

cepted candidates who demonstrate financial need. All accepted early decision candidates are guaranteed financial aid in the amount of their demonstrated financial need. (See page 24 and the financial aid brochure for filing information).

In addition to fulfilling the regular requirements for admission, early decision candidates must submit the Early Decision Agreement Form which is enclosed with the application packet.

The obligation of the accepted early decision candidate to Dickinson is to withdraw all other college applications and to submit the \$200.00 nonrefundable registration fee which is applied to the first semester tuition charges.

Early decision candidates seeking financial assistance should correspond directly with either the office of admissions or the office of financial aid prior to December 10 for EDP I and January 25 for EDP II to obtain the necessary financial aid forms. (See page 25).

Early Admission

Any student applying to Dickinson who has accelerated academically in order to leave or graduate from a secondary school in less than the traditional four-year time sequence (grades 9-12) is considered to be an early admission candidate. An individual interview is required of all students applying in this category. Applications for early admission will be reviewed on an individual basis taking into consideration maturity and readiness to participate in a residential college as well as academic ability. An early admission applicant must have the written recommendation and approval of the secondary school counselor.

Deferred Admission

Some accepted students may wish to defer the start of their college experience until they have pursued an alternate activity for a year or two. A written request which explains why the student wishes to defer admission and also which describes the alternate activity is required. Normally, experiences which enhance a student's educational background such as overseas travel, work, or study are approved. All deferral re-

quests are reviewed by the admissions staff on an individual basis.

Spring Term Admission

Any student who has officially graduated from a secondary school is automatically eligible for spring term freshman admission consideration if the student has not enrolled on a full-time matriculated basis at another college.

The College also will consider for spring term admission, upon the consent and recommendation of the candidates' guidance counselors, students who are currently high school seniors and who wish to start college early.

Common Application Plan

Dickinson College, along with a select number of colleges in the United States, participates in the Common Application Plan by which it is possible for a student to fill out one application form which will be used by the colleges subscribing to the plan. The Common Application Form may be submitted in lieu of the regular Dickinson application form and will be treated in the same way as the Dickinson form. For further information regarding the Common Application Plan, prospective applicants are advised to check with their guidance counselors.

Admission Requirements Transfer Applicants

Dickinson College welcomes qualified applicants with previous academic work at other accredited college-level institutions. An applicant normally will be considered for transfer admission if the applicant has been enrolled elsewhere as a degree candidate for the equivalent of at least two semesters prior to the term of desired enrollment at Dickinson.

The primary factors in the admission of transfers, in addition to those required of freshman applicants, are the college transcript, the reasons for transfer, and evidence of good character as shown by the Dean's Report Form (enclosed with the application form).

Previous academic work which has been satisfactorily completed with a grade of "C" or better (2.00 or above on a 4.0 scale) in a program of study that reasonably parallels the curriculum

of Dickinson College will be evaluated for credit. Normally, the course requirements for graduation (34 courses) will be reduced proportionately for every academic year of full-time study at other accredited institutions. Part-time course work, summer study, and unusual circumstances will be evaluated on an individual basis.

Final determination of credit and the satisfa-

tion of distribution and language requirements will be made by the registrar. Among the academic regulations applicable to all students and of particular note to transfer applicants is the graduation requirement that at least 17 courses be taken on campus, the last 12 of which must be taken while the student is matriculated with an approved major field of concentration.

Admission Category	Application Deadline	Admissions Decision Notification	Registration Fee Deadline
FALL SEMESTER			
Freshman, Early Decision Plan I	December 15	Between December 1 and January 1	By Jan. 15 or within 10 days after notification of financial aid status if the accepted student is a financial aid candidate
Freshman, Early Decision Plan II	February 1 (but not before Dec. 15)	Between January 15 and February 15	By March 1 or within 10 days after notification of financial aid status if the accepted candidate is a financial aid candidate
Freshman, Regular Decision	March 1	Between March 1 and March 30	The Candidates Reply Date of May 1
Transfer	June 1	Rolling notification as applications are completed	By May 1 if notification of acceptance is prior to April 20. After April 20, the registration fee deadline is ten days after acceptance. Accepted students who are financial aid applicants must submit the \$200 fee by May 1 or within 10 days of the financial aid notification if such notification is after April 20.
SPRING SEMESTER			
Freshman	December 1	By January 1	Within 10 days of date of notification of admission or within 10 days after notification of financial aid status if the accepted student is a financial aid candidate.
Transfer	December 1	By January 1	

Alumni Admissions Program

The Alumni Admissions Program of Dickinson College is composed of a group of alumni who are interested in providing a service to the students, parents, and schools of their home areas. The Alumni Admissions Program committees are most willing to provide accurate, up-to-date information about the College to all persons interested in learning more about the academic, cultural, extracurricular, and social programs available at Dickinson.

If you desire further and more specific information about the College, please feel free to contact the Alumni Admissions Program committee representative living in your home area. If you have trouble contacting our representatives, please call the Admissions Office for assistance.

ALASKA

Girdwood

Matthew Cain '83
Box 684
Girdwood, AK 99587
O. (907) 783-2222

CALIFORNIA

Los Angeles

Mrs. Paulette G. Katzenbach '68
153 S. Rockingham Avenue
Los Angeles, CA 90049
H. (213) 395-8073

San Francisco

Patricia Collins '71
620-5 Willowgate Street
Mountain View, CA 94043
H. (415) 968-9908
O. (415) 856-8753

COLORADO

Denver

Ronald H. Jacobs, Esq. '67
899 Pearl Street #23
Denver, CO 80203
H. (303) 837-1472
O. (303) 534-6335

CONNECTICUT

Fairfield County

Gregory S.C. Chann, DMD '77
31 Heather Lane
Wilton, CT 06897
O. (203) 762-8586

Hartford

Dr. John A. Bierly '66
25 Borough Drive
West Hartford, Ct 06117
H. (203) 521-8718
O. (203) 658-5552

New Haven

Lynn Hotchkiss '77
800 Edgewood Avenue
New Haven, CT 06515
H. (203) 397-8305
O. (203) 771-8892

DELAWARE

Southern Delaware

Laura and Jack Morris '76 & '74
941 Nassau Road
Lewes, DE 19958
H. (302) 645-5281
O. (302) 645-9431 (his)

DISTRICT OF COLUMBIA

Silver Spring

Mr. Peter C. Marks '73
10533 Pennydog Lane
Silver Spring, MD 20902
H. (301) 649-1290
O. (301) 982-0400

FLORIDA

Southern

Linda G. Steckley '63
7220 Southwest 105 Terrace
Miami, FL 33156
O. (305) 665-9715
H. (305) 284-4052

LOUISIANA

New Orleans

Betsy Strachan '82
7003 Jeanette Street
New Orleans, LA 70118
O. (504) 865-5198

ILLINOIS

Chicago

Kyle and Eric Evans '78 & '78
201 S. Ridgeland Avenue
Oak Park, IL 60302
H. (312) 383-8094

MARYLAND

Baltimore

Beth Sandbower '81
1028 Hollins Street
Baltimore, MD 21223
H. (301) 727-2347
O. (301) 962-1234

MASSACHUSETTS

Boston

Michael Shenkman '68
74 Orchard Street
Jamaica Plain, MA 02130
H. (617) 524-2485
O. (617) 522-2878

NEW JERSEY

Atlantic, Cape May, and Cumberland Counties

Patricia Miller Gable '65
18 School House Lane
Bridgeton, NJ 08302
H. (609) 455-3456
O. (609) 541-9400

Northern

Mark and Harriet Lehman '71 & '72
561 Bradford Avenue
Westfield, NJ 07090
H. (201) 232-3216
O. (212) 262-3777

Southern

Samuel Asbell, Esq.'66
Suite 116 — Station House
900 Haddon Avenue
Collingswood, NJ 08108
H. (609) 795-1214
O. (609) 858-7011

NEW YORK

Albany

Carleton H. Endemann, Jr. '68
2 Fenway Court
Loudonville, NY 12111
H. (518) 449-8457
O. (518) 783-8811

Long Island

Meg Scandura '82
202 Willowood Drive
Wantagh, NY 11793
H. (516) 796-4557

New York City

Lawrence B. Landphair '75
232 East 12th Street, Apt. 10E
New York, NY 10003
H. (212) 254-6198

Upstate New York

Sherrill
Rev. Robert J. Thomas '40
P.O. Box 57
Sherrill, NY 13461
H. (315) 363-5193

Syracuse

Ellen M. Nicholoson '81
c/o Syracuse University College of Law
B.I. White Hall
Syracuse, NY 13210
H. (315) 478-0199

Westchester-Rockland Counties

Richard A. Leins, '71
Greene, Leins & Ryan, Esqs.
Barclays Bank Building
Ossining, NY 10562
O. (914) 941-5500

OHIO

Cleveland

Stephen H. Hoffman '72
1750 Euclid Avenue
Cleveland, OH 44115
H. (216) 921-4097
O. (216) 566-9200

PENNSYLVANIA

Lancaster

Daniel E. and Wendy Losey Basehoar '76 & '76
736 State Street
Lancaster, PA 17603
H. (717) 291-9360
O. (717) 626-4721. (hers)
O. (717) 394-0793 (his)

Lehigh Valley

Ellen & David Wolff '82 & '82
354 Valley Park South
Bethlehem, PA 18018
H. (215) 691-6173
O. (215) 258-9181 (his)
O. (215) 439-1451 (hers)

Philadelphia

Mr. Richard E. Craft '81
111 Croton Avenue
Strafford, PA 19087
H. (215) 687-0123
O. (215) 636-4129

Pittsburgh

Ronald Waetzman '71
600 A Shady Avenue
Pittsburgh, PA 15206
H. (412) 661-4177
O. (412) 232-7500

TENNESSEE

Nashville

Janet M. Harding '78
Bass, Berry & Sims
First American Center
Nashville, TN 37238
O. (615) 244-5370

TEXAS

Dallas-Fort Worth

Sandy Quittman Walker '74
4422 Shady Hill Drive
Dallas, TX 75229
H. (214) 350-1205

WYOMING

Casper

Mary Beth Wight Peden '71
1808 S. Chestnut
Casper, WY 82601
H. (307) 235-3566

INTERNATIONAL

ENGLAND

London

Andrew Hyde '81
5 Sydney Street
SW3 6PU
London
H. (01) 352-5832

Minority Recruitment and Retention

As an institution of higher education, Dickinson College recognizes that breadth and depth in the pursuit of learning is enhanced by diversity within the student body, faculty, and administration. The quality of an education depends not only on the subject matter taught and the quality of the teaching, but also on the people with whom students share their learning experiences. Regular dialogue among students, teachers, and administrators, crucial to the teaching-learning process, is enhanced by diversity in a campus population. The more heterogeneous the participants, the wider is the range of ideas and perspectives.

The presence of racial and ethnic minorities within a campus population makes possible a particularly significant kind of diversity. Students, faculty, and administrative staff who represent these minority groups enable the college community to experience the racial and ethnic characteristics of the society in which graduates of Dickinson will live and work. The minority presence helps all students better understand the problems and rewards of living with diverse

groups. Familiarity with and increased sensitivity toward the cultural heritage, viewpoints, and values of diverse groups in society encourages a reassessment of personal viewpoints and values.

The College, therefore, is strongly committed to recruiting minority students and to appointing minority persons to faculty and administrative positions. A Commission on the Status of Minorities, appointed by the president of the College, is one way in which visible form is given to this college commitment. Other ways are through active recruitment efforts by the Office of Admissions and by the academic and administrative departments of the College. Such recruitment is supported by the development of an academic, cultural, and social environment that encourages the retention of minority persons and that ensures the highest probability that minority students will complete their education at Dickinson.

Dickinson Guest Student Program

Dickinson College welcomes qualified applicants who wish to study here on a full-time, non-degree status for either one or two successive terms "in absentia" from their present college. This program is specifically designed for those students who wish to participate in the high quality academic and cocurricular life of a small college community.

Application deadlines are December 15th for spring term admission consideration and August 1 for fall term admission consideration. Applicants are notified of the admission decision on their application on a rolling admissions basis as the applications become complete. A \$200 non-refundable deposit is required from accepted applicants and is applied toward the first semester tuition. For further details regarding the Guest Student Program, please write to the director of admissions at Dickinson College.

Continuing Education

The office of continuing education serves adults in the community who wish to take advantage of the many activities at the College that will enrich their lives and further their education, both within the regular course work and through other events and special programs.

Adults interested in regular study at the College on a part-time basis should apply through this office. Normally students in continuing education will have been away from the formal education process for a year. Registration for these students is limited to two courses in the regular curriculum each semester.

Adults may enroll in regular classes either on a credit or audit basis. Auditors attend class, read the assignments, but submit no written work, do not take examinations and receive no academic credit. They are not seeking a degree and may continue in the program indefinitely.

Adults planning to matriculate and to earn a Dickinson degree are encouraged to begin their college career in the continuing education track. They may take four courses at a special lowered tuition rate before their academic record is evaluated to determine their eligibility for regular admission. If they are admitted to degree status, they may continue to work on a part-time basis if they so desire.

Inquiries about study through continuing education should be made by writing the director of continuing education or calling 717-245-1384.

High School Enrichment Program

Upon the recommendation of their high school guidance counselors, promising high school students may elect to augment their high school program by enrolling in up to two courses per semester at Dickinson. Information about course offerings and assistance is provided by the office of academic affairs.

The Consortium Exchange Program

Dickinson, Franklin and Marshall, and Gettysburg form the Central Pennsylvania Consortium. (See Off-Campus Study in the United States page 152).

Readmission

Any formerly matriculated student who wishes to re-enroll must file an application for readmission. Such applications should be filed with the registrar prior to March 15 for the fall semester, and prior to November 1 for the spring

semester. A student who was required to withdraw should consult page 162.

A student who is absent from the College at least three years, and who is readmitted and successfully completes the equivalent of at least two semesters of work on campus, may petition the College Committee on Academic Standards to have course credits toward graduation and cumulative grade averages based only on work accomplished after the second matriculation. "Successful completion" will mean the attainment of at least a 2.0 average, or a higher probationary average, as stipulated by the committee.

Changes in Non-Degree Student Status

A non-degree student who desires full-time status must have the approval of the director of admissions, who may seek the advice of the Committee on Admissions and Financial Aid in

certain circumstances. Approval may be for a semester or a year and is renewable.

A non-degree student who desires to become a degree candidate must receive the approval of the Committee on Admissions and Financial Aid. In seeking such approval, the student must submit all transfer credit he or she plans to apply toward the Dickinson degree. In general, a student must meet all the requirements for graduation in effect at the time of acceptance, including being accepted as a major by some department prior to completing 22 courses. Failure to be accepted as a major means required withdrawal from the College without the privilege of readmission. In addition, a student must meet the same requirement as a transfer student, i.e., the student must complete 17 courses on campus, the last 12 of which must be taken while the student is matriculated with an approved major field of concentration.



Financial Information

Expenses

The costs of an education are of concern to students, their families, and to colleges. Dickinson has been pleased to hold the charge made to a student—tuition, room, board and fees—33 percent below the actual expense of that student's education. Each student pays 67 percent of the real cost of an education at Dickinson because the College has sought effectively to obtain funding from other, outside sources. Gifts, grants, alumni contributions, bequests, and income from summer conferences help Dickinson to reduce the costs of education for every student.

Additionally, financial aid is available to many. The College is aggressive in seeking financial aid for those who have valid needs. Financial aid comes from endowment and other college sources and from outside agencies. Further, because certain Federal and state programs are broadly available, it is recommended that all prospective students and their families read the section dealing with financial aid.

Fee Structure

All basic expenses due to Dickinson fall into three categories: a comprehensive fee, a resident fee, and a Student Senate fee. Other expenses, such as private music tuition or automobile registration, must be paid in addition. Books and supplies are also additional.

The comprehensive fee includes tuition, athletic program support, and support for the student union, and applies to students enrolled in three or more courses per semester; students enrolled in fewer than three courses are billed on a course basis.

The resident fee includes room and board. It also provides support for the infirmary.

The Student Senate fee supports a wide range of social and cultural activities administered by student officers elected by the student body.

A registration deposit is required each semester.

Payment Procedures and Regulations

Registration Deposit. A registration deposit will be charged prior to each semester to reserve enrollment in college classes and assignment of dormitory space. This deposit of \$300 per semester is credited toward the semester charges and is nonrefundable after the due date announced by the College if a student's registration is cancelled.

Making Payment. An itemized statement of fees and charges is mailed approximately six weeks prior to the beginning of each semester. Payment is due and must be paid in full 10 days prior to attendance at class each semester. Accounts not settled by the due date will be subject to a late payment of 1 1/2 percent per month on the amount unpaid.

Payment Plans. Persons wishing planned payments should consider the option of the Girard Trust Edu-check Plan, the Tuition Plan, Inc., Richard Knight Insured Tuition Plan, the Academic Management Services plan, or the newly instituted low interest federal loan program for parents called Parent Loans for Undergraduate Students (PLUS). Information on the first three plans is available from the Dickinson business office. Information on PLUS is available from the college financial aid office or your bank. Applications for these plans must be completed six weeks before the school year begins to assure having funds available for use for the fall semester.

The Dickinson College Flexible Financing System is available to help families develop manageable monthly payment amounts and to extend payments over more than the four years of a child's educational career at Dickinson. The basic component of the system is an educational services installment payment plan called the 2500 Plan which provides as much as \$2500 per year to parents of Dickinson students. Attractive features are the low interest rate and a requirement of repaying only the interest on the outstanding principal while the student is at Dickinson.

The 7000 Plan, recently introduced as one of the nation's first college-sponsored financing systems of major proportions, permits parents to extend payments for as much as \$7000 per year (\$28,000 maximum) over as many as 13 years, with an interest rate established each year at one point above the prime rate. Particularly in the larger program offered by the College, flexibility is stressed. Families may contract for the precise amounts they need, at the times help is needed, throughout a child's career at Dickinson.

Additional information about the Flexible Financing System is available from the comptroller or the director of financial aid.

Outside Agency Support. Students attending college under a provision with a State Board of Assistance or other agency must supply complete information to the business office.

Refunds of Charges in Case of Withdrawal. Rules governing refunds are on file in the business office. Refunds on charges:

Comprehensive Fee (tuition portion only)

Two weeks or less 80%

Between two weeks and three weeks 60%

Between three weeks and four weeks 25%

Between four weeks and five weeks 20%

Over five weeks None

Room None

Board Unused days of board

No reduction will be allowed for absence of students withdrawn for unsatisfactory conduct or scholarship.

The Trustees reserve the right at any time to amend or add to the regulations of the College, including those concerning fees and methods of payment, and to make such changes applicable to students presently enrolled, as well as to new students.

Financial Aid

Dickinson is aggressive in seeking ways to help families and students manage the costs of education. The College's endowment includes specially earmarked funds for financial assistance; some general endowment funds are also set aside for this purpose. Each year, federal and state funds are made available for assignment by

Fee Schedule, Regular Session, 1984-85

Full-time Students (Taking 3 or More Courses)	Per Semester	Per Year
Comprehensive Fee	\$4120.00	\$8240.00
Resident Fee	700.00	1400.00
Room	700.00	1400.00
Board		
TOTAL FEES	\$5520.00	\$11040.00
Student Senate Activities Fee		\$83.00

Part-time students

(1 or 2 courses per semester)	
Per course charge, non-matriculant	\$1050
Per course charge, matriculant	1370
+ Student Senate Activities Fee, per course for matriculants	15
Audit charge, per course	525
Continuing Education, per course	490
Continuing Education Audit, per course	185

Other Fees

Application (incoming students)	\$ 25
Applied Music: 1 hour/week for semester	340
1/2 hour/week for semester	170
Automobile Registration, per year	10
Service Charge: 1-1/2% per month on amount unpaid	
5-day luncheon plan, per semester	255
ROTC Activities Fee, per year	30
Transcript Records: one time fee for incoming students	20

the College, or on behalf of students. In some cases, gifts and grants from corporations and foundations provide help. Also, in some instances families find that employers and other near-to-home sources can provide assistance.

The decision to award financial aid is based solely upon need; the College does not offer "incentive scholarships" designed specially to attract students who do not need financial aid. A "package" of financial aid is assembled for each recipient, and may include direct grants, loans, or on-campus work opportunities. It is interesting to note:

—fully 43 percent of last year's full-time students received grants from Dickinson's own endowment.—75 percent of last year's students received some form of financial aid from all sources combined.

The table below is reprinted from Dickinson's brochure on financial aid.

Application for financial aid is uncomplicated: parents simply submit the Financial Aid Form of the College Scholarship Service of the College Board, and designate Dickinson as an information recipient. This form is available in secondary school guidance offices and college financial aid offices. Pennsylvania residents should also complete the PHEAA grant application form, also available through high school

guidance offices and college financial aid offices throughout the Commonwealth. In other states, these same sources can provide state-specific forms and data, or contact Dickinson's financial aid office. The CSS and state agencies will then send data directly to Dickinson; these data constitute a financial aid application.

Forms of Financial Aid

A financial aid recipient may be granted one or more forms of assistance:

Grants. Grants (outright gifts) of funds may be made from the College's own endowment, from state or Federal sources, or from outside agency funds.

Campus employment. Most students receiving assistance are offered campus employment of up to 12 hours of work a week in exchange for wages which help reduce expenses. Campus jobs are granted using funds from the Federal College Work-Study program; a much smaller number are provided from Dickinson's own funds.

Loans. Low interest loans to students and to parents are now available fairly readily. Two Federal programs (the National Direct Student Loans and Guaranteed Student Loans) are able

FINANCIAL AID FOR ADMITTED STUDENTS: CLASS OF 1987

Family Income	Number of Admitted Applicants Who Applied For Aid	Number Determined To Have Need	Number Offered Aid	% of Needy Students Offered Aid	Total Aid Available to Meet Need	Average Total Award	Range of Total Award	Average Grant Award
\$ 0 to \$ 9,999	30	30	30	100	\$ 248,650	\$8,288	\$2,010 to \$10,380	\$5,667
10,000 to 19,999	88	84	84	100	728,810	8,676	4,440 to 10,080	5,644
20,000 to 29,999	122	115	115	100	833,749	7,250	1,529 to 9,580	4,464
30,000 to 39,999	159	145	145	100	892,820	6,157	1,080 to 8,580	4,559
40,000 to 49,999	154	113	113	100	505,570	4,474	820 to 8,130	2,501
50,000 to 59,999	108	56	56	100	254,320	4,541	1,280 to 7,880	2,541
60,000 to 69,999	46	17	17	100	61,840	3,638	1,040 to 8,080	2,097
70,000 to 79,999	26	10	10	100	36,440	3,644	1,210 to 4,720	1,607
80,000 and Above	23	4	4	100	15,500	3,875	1,030 to 6,830	2,860
TOTALS	756	574	574	100	\$3,577,699*	\$6,233	\$ 820 to \$10,380	\$3,780

*Total aid offered, \$3,577,699, was composed of grants amounting to \$2,169,829; self-help in the form of loans totaling \$1,032,080; and earning capacity in the form of part-time campus employment totaling \$375,790.

to make loans to the student; repayment does not begin until after the student finishes attending school. A new program, Parent Loans for Undergraduate Students (PLUS), is available to the parents of college students, and monthly payments begin within 60 days; this may prove very useful to parents seeking ways to spread out the costs of education for their children.

Summer employment. Students are normally expected to obtain summer jobs and to apply those earnings toward the costs of education.

Students receiving grants are usually also given loans and campus employment as part of their "package". For more details, read the financial aid brochure.



ACADEMIC PROGRAM

The Shape of the Curriculum

The Dickinson College baccalaureate degree is the result of a four-year educational journey. The landscape comprising that experience is what all Dickinsonians have in common, although each one of them travels through it along a distinctive pathway. Students need constantly to make specific and individual choices regarding courses, programs, and activities as they move through college and so they each fashion a way uniquely their own. Yet they do so in aspiration with others, within a community of shared intellectual inquiry. This mutual journeying, not the separate roads chosen, is what is most important.

Students may elect either of two broad approaches to the curriculum: the Bachelor of Arts or the Bachelor of Science. General graduation requirements are the same in either case, but only students with a concentration in one of the natural or mathematical sciences may be a candidate for the Bachelor of Science.

Whatever Dickinson students finally decide to emphasize, they begin by exploring in a general way the full breadth of liberal learning as it is represented in the three fundamental branches of the academic curriculum. The humanities share a common interest in the meaning of human experience. They help us interpret ourselves and our world through artistic and conceptual self-expression, through critical reflection, and through a heightened sensitivity to the nuances of the human spirit. The social sciences seek to describe, analyze, and interpret the ways by which persons interact within the societies they have created. They assist us in seeing the complex conditions which historically and currently have defined the possibilities

for both human failure and achievement for conflict and for reconciliation. The natural and mathematical sciences are linked by their goal of understanding the character and the interdependences of the natural order. They allow us to discern basic structures and regularities in the universe, to trace the past development of planet earth and its living creatures, and to anticipate future changes.

Every educated citizen should be reasonably familiar with these three basic kinds of learning, but everyone should also study in some depth at least one disciplined approach to knowledge. Dickinson students therefore develop a concentration in a major. The arts and literatures provide 10 such concentrations within the humanities; in the social sciences there are six concentrations; the natural and mathematical sciences provide six as well. These 22 disciplinary majors represent the basic academic disciplines that outline the liberal arts. They are complemented by seven interdisciplinary majors and two interdisciplinary certification programs.

Courses are offered in two semesters, each comprising 14 weeks of classes plus a brief reading period followed by final examinations. The fall semester begins in early September and concludes prior to Christmas and Hanukkah. Students have a reading period of a few days after the end of classes in which to take stock of their work for the semester and prepare for the final examinations and papers which are scheduled at special times during the subsequent week. Spring semester begins near the end of January and runs through to mid-May, following the same pattern. A summer term is also available for those who prefer the smaller classes and quieter pace it provides. During the summer, students usually take two courses at a time in either of two five and a half week sessions.

Students usually enroll in four courses at a time, although they frequently take five. Normally a course meets three times a week for 50 minutes or twice a week for 75 minutes; some upperclass seminars meet just once during the week for two and a half hours. Laboratories and field trips are scheduled in single afternoon time blocks. This variety in the weekly schedule provides classtimes suited to differing teaching

methods and to the requirements of specific subjects. For example, brief but frequent meetings are often the best way to learn information, practice a skill, or discuss a series of related issues. Sometimes extended workshop sessions serve well the rhythms of a course that requires room to develop an idea or explore a problem or acquire a technique.

Freshman seminars, all foreign language classes, courses on writing, and most upperclass seminars have class enrollments of no more than 15 students. A typical introductory course enrolls 35 students, most intermediate-level courses have 25 to 30 students, and 300-level courses are usually no larger than 20 or 25. Although introductory science course lectures enroll classes of 50 to 100 students, the accompanying laboratories are conducted in sections of 12 to 40. Advanced science classes and labs are usually under 25. Independent studies and tutorial opportunities, internships, and honors provide students with a range of occasions for one-to-one teaching and learning. Maximum class sizes are established in order to provide students with adequate opportunities to interact with their professors and with other students. As a result, students do not always gain access to their first choice of courses during a given registration period, but every effort is made to anticipate such problems and when necessary to open new course sections.

Professors evaluate student achievement by the traditional means of written comments on papers and exams as well as by assigning letter grades. They are also available to students for individual conferences, to answer questions or discuss complaints, and just to talk further about some important matter raised in class.

In all but the final semester, a student may enroll in one course on a pass/fail basis as one way to venture into new intellectual fields. A very few courses, and all internships, are taught on a mastery (credit/no credit) basis only.

In the middle of each semester a "roll call" is taken in each course and grades below C reported to the students and their advisers as a way to identify academic problems while they can still be resolved. All freshmen during their first

semester roll call receive interim grades for all courses.

At the end of every term, final grades are reported to students by means of a grade report that also summarizes other information relevant to their progress toward graduation.

Almost all of Dickinson's students have enrolled in college immediately after finishing high school; 78 percent of them subsequently graduate from Dickinson. Some transfer to other colleges, some accelerate, and some take longer than four years to earn their degree. A few students transfer each year to Dickinson from elsewhere. A small but highly motivated sprinkling of adults enroll in courses in order to complete a much-delayed baccalaureate or simply to enjoy afresh the challenges of liberal education. In 1983 Dickinson graduated 425 students. Since its founding 209 years ago, 15,977 graduates have walked down the stone steps of Old West to receive a Dickinson baccalaureate and to commence their roles as adults and citizens in a changing world.

Requirements for the Degree

The following guidelines assist students in developing programs of study which introduce them to the special nature of inquiry in each of the three major divisions of learning—the humanities, the social sciences, and the natural and mathematical sciences—and which ensure their growth in a knowledge of other cultures, of the place of physical activity in their lives, and of studying one area of the curriculum in depth.

Students must meet the following general requirements. All students must pass 34 courses with a cumulative average of 2.0. A student must complete a minimum of 17 courses on campus. Twelve courses must be completed on campus after the student has matriculated and has an approved field of concentration. The last four courses or six of the last eight courses immediately preceding graduation must be taken on campus. Students must satisfactorily complete courses which fulfill the requirements for distribution, cross-cultural studies, physical education, and the field of concentration.

1. Freshman seminars. Beginning with the 1981-82 academic year, one of the courses each entering freshman must take during the fall semester is a seminar which addresses particular problems or topics growing out of the liberal arts curriculum and often drawing from more than one disciplinary perspective. These seminars serve to introduce freshmen to the intellectual life of the College by encouraging them to participate actively in small group discussions and by setting standards for their writing and research which will enable them to become full members of the academic community.

2. Distribution courses.

Humanities (3 courses). Students should select one course from each of the following three groups:

- a. One course in philosophy or religion; or Environmental Studies 111.
- b. One literature course in English, French, German, Greek, Italian, Latin, Russian, Spanish.

c. One course from the following: history of art; art, history or theory of music; or history of dramatic arts.

Social Sciences (3 courses). Students should select three courses, each from a different area or department within the social sciences. Those areas or departments are American studies, anthropology, economics, history (or classical history), political science, psychology and education, sociology.

Natural and Mathematical Sciences (3 courses). Two of the three courses to be selected must be a two-semester laboratory sequence in one of the following departments: biology, chemistry, environmental science, geology, or physics-astronomy. The third course must be chosen from a department in this division different from the two-course laboratory sequence and may be either another laboratory course, a non-laboratory course, or a course in mathematics (excluding Math 100), contemporary science, or history of science. Note: Computer Science 101 does not fill this requirement.

3. Cross-cultural studies. To prepare students to be effective members of the independent world, the College requires the study of a foreign language through the intermediate level and the election of one course in comparative civilizations. The language study often complements work in other disciplines. The comparative civilization courses seek to deepen students' understanding of the diversity in cultures by introducing them to traditions other than those that have shaped or influenced the modern West. In addition, the Faculty Committee on International Education coordinates a range of area study programs on campus and abroad. (See Foreign Study Programs.)

Languages. All students are required to demonstrate that they have completed work in a foreign language through the intermediate level. If the student's native tongue is not English, he or she may be excused from this requirement by the dean of the College who will give the student written notification to the registrar and to the student's adviser.

If the student has studied a language for two or more years in a secondary school and wishes to take that language at Dickinson, he or she must take the College Entrance Examination Board Achievement Test in the language. The student's score on the test will indicate the appropriate level of study at the College. The student may be excused from the language requirement on the basis of a sufficiently high placement score, with the permission of the appropriate language department.

Students beginning a language at Dickinson must satisfactorily complete the 102 or 104 level course before receiving credit for the 101 course. A student who is qualified by placement for enrollment at any given level, but who is unable to work effectively at that level, may (at any time within the first 30 calendar days of the semester) with the concurrence of the instructor and adviser drop back one level without penalty.

Beginning with the summer of 1984, Dickinson language departments will offer language immersion programs for students completing their general language requirement. These programs allow the student to augment their required foreign language study by spending a month in the country in which that language is spoken. Students will be expected to depend almost entirely upon the foreign language as their means of communication in order to increase their language proficiency and their motivation to use the language further. Immersion programs will be offered during the summer of 1984 in German, Italian and Spanish. In 1985 programs will be offered in French, Classical Languages and Russian as well.

Students who have fulfilled the language requirement may then receive credit for a single semester of the elementary level of another language only by indicating their intention to do so during the add/drop period at the Office of the Registrar.

Comparative Civilizations. Students should select one course in the comparative study of civilizations. Each semester such courses are listed in the preregistration booklet.

4. Physical education activities. Satisfactory completion of three semesters (six units) of physical education is required. Transfer students with junior standing with no physical education credit need to take only two semesters (four units) of physical education. This requirement may also be met by one year of active military service. Six months of active military service may be counted in satisfaction of two of the three semesters of physical education.

Every student who has not completed the physical education requirement must register for physical education unless excused in writing by the dean of the College. Students are expected to have completed the physical education requirement by the end of the first semester of their senior year. Refer to physical education section of the course descriptions.

5. Concentration. Students should select a field of concentration from among those departments offering major fields of study (see *The Shape of the Curriculum*, page 27) or should, by working with a faculty committee, design their own major field of study (see *Special Majors*, page 147). The major consists of nine or ten courses of academic work in the discipline. In addition to these courses the department may, with the concurrence of the Committee on Academic Program, prescribe additional courses in related fields.

The major field of concentration is normally selected during the spring of the student's sophomore year. The departments determine the student's acceptance as a major upon the basis of stated criteria. The department assigns the accepted student to an adviser, using the student's preference as one of the bases for assignment. A student who is not accepted for a major field of concentration during the semester in which the 22nd course will be completed will be required to withdraw from the College.

The student may also elect a minor field of study which usually consists of six courses of academic work specified by the department offering the minor. If a student completed a

minor in one or more fields of concentration, this fact will be noted on the permanent record.

If a student intends to major in more than one department, approval must be secured from each department. This student must develop a program in consultation with both departments, and therefore must be advised jointly by a member from each department and must secure approval of both advisers. The same course may be counted for more than one major except for courses under the self-developed major program.

Students who wish at any time to change a major must be accepted by the new department in accordance with normal procedures for declaring a major.

The Nisbet Scholars Program

The Nisbet Program provides some students with the opportunity to participate in the design of their own liberal arts program of study. Students interested in the process of studying the history and nature of the liberal arts and in joining with a seminar group of 12 students to discuss each member's application of this study in the development of his or her educational experience at Dickinson should apply to this program. Invitations to the program will be distributed to students through the freshman seminar faculty in the fall of their first year. Selections will be made on the basis of recommendations by the freshman seminar faculty, by interviews with Nisbet faculty and by the student's written application to the program. No more than 48 students will be accepted into the program from any entering class.

During the second semester of the freshman year, Nisbet students participate in a seminar which explores the evolution of the present idea of the liberal arts. This study forms the basis for each student's development of his or her own educational plan. Although Nisbet students are excused from normal College distribution requirements, they undertake special responsibilities: they must submit a written account of their evolving educational program to members of their Nisbet seminar at least once a semester and must include in this plan a program of at least six

courses which balances a major field of concentration either in breadth (should their major be disciplinary) or in depth (should their major be interdisciplinary); they must participate in a non-credit seminar in their sophomore year which addresses the special opportunities and problems of the liberal arts student; they must arrive at a commonly agreed upon topic for an interdisciplinary seminar in the senior year with other members of their group; and they may pursue an independent research project which grows out of the senior seminar and for which they may receive honors in the Nisbet Program.

The graduation requirements for students in the Nisbet Program are the completion of all the requirements of the program noted above and the completion of 34 courses including the freshman and senior Nisbet seminars with a cumulative average of 2.0. Nisbets must also meet the College residency requirements.

The Nisbet Program was named in honor of Charles A. Nisbet, the first president of Dickinson College. Nisbet was persuaded by Benjamin Rush to come to Carlisle in 1783 to assume the leadership of a small college founded on the frontier to educate a nation's youth in literature, science, and moral philosophy. He sought to liberate their minds so that they might be prepared to assume the leadership of a fledgling nation. In a similar fashion, today's Nisbet students are encouraged to use their college education to enable them to attain personal ideals and social responsibility.

Programs and Courses of Study

Bold Face type indicates that a Major is offered.

AMERICAN STUDIES
ANTHROPOLOGY
ASTRONOMY
BIOLOGY
CHEMISTRY
CHINESE
CLASSICAL STUDIES
COMPARATIVE CIVILIZATIONS
COMPUTER SCIENCE
DRAMATIC ARTS
ECONOMICS
EDUCATION
ENGLISH
ENVIRONMENTAL STUDIES
FINANCIAL AND BUSINESS ANALYSIS
FINE ARTS
FRENCH and ITALIAN
GEOLOGY
GERMAN AND RUSSIAN
GREEK
HEBREW
HISTORY
HUMANITIES
INTERNATIONAL STUDIES
ITALIAN
ITALIAN STUDIES
JUDAIC STUDIES
LATIN
LATIN AMERICAN STUDIES
LIBRARY RESOURCES
MATHEMATICS
MATHEMATICAL SCIENCES
MILITARY SCIENCE
MUSIC
PHILOSOPHY
PHYSICAL EDUCATION
PHYSICS and ASTRONOMY
POLICY AND MANAGEMENT STUDIES
POLITICAL SCIENCE
PSYCHOLOGY
PUBLIC SPEAKING
RELIGION

RUSSIAN
RUSSIAN AND SOVIET AREA STUDIES
SCIENCE
SOCIOLOGY
SPANISH
STUDIES IN THEATRE and DRAMATIC LITERATURE

Courses of Instruction

When two course numbers, followed by a single description, are separated by a comma either course may be taken without the other, although the two are normally taken together as a one-year course.

When two course numbers, followed by a single description, are separated by a comma, and preceded by an asterisk, the first course may be taken without the second, although the two are normally taken together as a one-year course. The first course, however, is a prerequisite for the second.

When two course numbers, followed by a single description, are separated by a hyphen, the work of the two semesters constitutes an integral, indivisible one-year course. Students who pass the first semester receive a grade of "S". When the second semester is successfully completed, the grade is recorded and credit is given for both courses. Those students who fail the first semester receive "F" and may not take the second semester course.

American Studies

Professor Malmsheimer, Director

A revolt against the rigidity of traditional academic disciplines gave birth to the American Studies movement in the 1930s. Since that time, scholars have been developing new techniques for the investigation of America, past and present. Americanists have examined their complex society from a variety of perspectives, employing a rich blend of theories on society, culture, and sociocultural change. The discipline recognizes that the pluralistic nature of American society and the complexity of contemporary problems demand an understanding of social institutions and cultural values. Such an understanding may be pursued through self-critical analysis, through examination of particular social systems and subcultures, and through cross-cultural analysis.

In cooperation with participating departments, the American Studies Program at Dickinson seeks to provide an innovative and coherent approach to the study of American culture. American studies students are expected to develop a broad comprehension of the American experience, to think systematically about the nature of cultural analysis, and to analyze a topic of their choice from different disciplinary perspectives. Each American studies student develops a unique program of study which is given coherence through the core courses and through careful planning and advising concerning the student's thematic concentration. Many students take advantage of such off-campus programs as the American Studies Washington Semester, the Appalachian Semester, and the Harrisburg Urban Semester. Such international programs as that of the Center for European Studies in Bologna provide opportunities to exercise a comparative cultural perspective.

Students usually decide to major or minor in American studies during or after taking American Studies 212. All interested students are

urged to take introductory-level work in history, English, anthropology, and sociology during freshman year. Non-majors can receive social science distribution credit for American Studies 212 and may be admitted to the advanced courses by permission of the instructor.

American studies graduates have found jobs in social service areas, publishing, journalism, teaching, government, counseling, and law. Others have gone on to graduate education in a variety of fields including American studies, historic preservation, history, law, urban planning, religion, and journalism. All have left Dickinson with an informed and critical understanding of the society of which they are a part.

Faculty:

Lonna M. Malmsheimer, Director and Associate Professor of American Studies, Ph.D., University of Minnesota. Her research interests are Interdisciplinary methods, Three Mile Island, the Carlisle Indian School, and photographs as documents.

American studies courses are also offered by other faculty members from cooperating disciplines.

Courses:

212. Introduction to American Studies The culture concept and techniques of cultural analysis applied to selective aspects of the American experience. Through readings, lectures, discussions, and field work, students explore the significance of a variety of social documents including novels, buildings, films, oral testimony, historical and sociological studies, social criticism, and the artifacts of material culture.

490. Research and Methods In American Studies An integrative seminar focusing on the achievements and problems of interdisciplinary study. Students examine the current literature of American studies, discuss relevant philosophic questions and, in research projects, apply techniques of interdisciplinary study to a problem related to thematic concentration. *Prerequisite: American Studies major or permission of the instructor.*

491. Seminar in American Studies: Selected Topics Topics chosen annually on the basis of student interest and scholarly concerns in the field. Such topics, explored through reading, discussion, field work, and research, include: Technology and America; Autobiography and American Culture; The Twenties; Social Criticism in America; Literature as History; Male and Female in America; Metaphors of American Experience; Film and Society; Myths, Fictions, and American Life; America Through Foreign Eyes; The American Artist and Society; Studies in Material Culture; The Transcendental Aesthetic. Students should refer to the class schedule for the topic being offered in any given semester. *Prerequisite: Permission of the instructor.*

Major: ten courses including

Requirement I.

Core courses in American Studies 212, 490, 491.

Requirement II.

One survey course in both American literature and American history and one course from sociology-anthropology which emphasizes theories of culture and comparative cultural analysis or conceptions of social structure and sociological theory.

- a. One semester course in American history chosen from the following: 281. Recent U.S. History; 247. American Colonial History; 249. American Intellectual and Social History; 250. American Intellectual and Social History.
- b. One semester course in American Literature chosen from the following: 323. Topics in American Literature; 382. American Romanticism; 384. American Poetry; 386. American Novel; 388. American Drama; 409. Seminar in American Literature.



c. One semester course in sociology or anthropology chosen from the following: Sociology 340, Social Change and Social Movement; Sociology 341, Class and Culture; Anthropology 231, Theory and Method.

Requirement III.

Thematic concentration. At least four courses, with no more than two of these four to be taken in one department, chosen in close consultation with the director to illuminate a topic of the student's choice. Although each topic will dictate a different selection of courses, not all of which must have American emphasis, the American Studies Program has approved the following list of American content courses offered by other departments and programs. These courses represent a partial listing of the many courses of special interest to American Studies majors offered at Dickinson.

Anthropology. 210. Culture and Communication; 211. Folklore; 214. Ecological Anthropology; 216. Medical Anthropology.

Economics. 214. A Contemporary Economic Issue; 222. Environmental Economics; 350. Industrial Organization and Public Policy; 344. Public Finance, 347. Money and Banking; 371. Topics in Economic History.

English. 323. Topics in American Literature; 382. American Romanticism; 384. American Poetry; 386. American Novel; 388. American Drama; 409. Seminar in American Literature.

Environmental Science. 131, 132.

Environmental Studies. 111, 222.

Fine Arts. 204. American Art; 314. 20th Century Art.

History. 282. Diplomatic; 289. Afro-American History; 211. Studies in American History; 287. American Constitutional History; 288. Civil War; 290. U.S. Ethnic History; 390. Seminar in American History.

Music. 108. American Jazz.

Philosophy. 245. American Philosophy; 385. Theories of History.

Political Science. 140. The City; 205. American Political Thought; 241. Black Experience; 244. Public Opinion; 245. Political Parties; 246.

Legislative Process; 247. American Presidency; 290. Selected Topics in Political Science.

Religion. 211. Aspects of American Religious Culture.

Sociology. 222. The Family Phenomenon; 223. Deviant Behavior and Social Control; 224. Race and Group Relations; 225. Urban Cultures and Communities.

The American studies list will be updated each year to include new course offerings. "Selected Topics" courses open to majors in other fields will be credited towards the American studies major when they are judged pertinent to Requirement III in each student's program.

Minor: American Studies 212, 491 and Requirement III.

Note: All courses credited toward the major must be taken for a letter grade unless they are not offered on this basis.

Anthropology

Anthropology explores the human record in all times and places. Physical anthropologists study man by comparing anatomy and behavior among members of the Order Primates to which *Homo sapiens* belongs. They study human growth and nutrition, and are interested in the genetic composition of populations. They examine the fossil evidence for human evolution, and the ways in which culture has been involved in this process. Archaeology documents the cultures of the past, and seeks explanations of their development. Cultural anthropology analyzes human life-ways in the present and immediate past by evaluating each culture in terms of itself rather than imposing preconceived values, and by drawing general principles from cross-cultural comparisons. Anthropological study sensitizes us to our own ethnocentrism, realizing the immortal aspiration of the Scottish bard:

Oh wad some power the giftie gie us
To see ousels as others see us!
It wad frae monie a blunder free us!

As an eclectic approach to soma, psyche, secular and sacred society, values, and world-view, anthropology is comparable to the liberal arts in microcosm.

Majors have continued in graduate studies in archaeology, social anthropology, social work, ethnomusicology, psycholinguistics, law, medicine, public health, and academic administration.

Faculty:

H. Wade Seaford, Jr., Associate Professor of Anthropology. Chairman. Ph.D., Harvard University. Graduate studies, Escuela Nacional de Antropología e Historia, Mexico, D.F. Special interests: physical anthropology, the interrelation of culture and biology, linguistics, deaf communication, the cultures of China and Latin America.

Kjell I. Enge, Assistant Professor of Anthropology. Ph.D., Boston University. Areas of specialization in sociocultural anthropology include theory, ecology, medicine, kinship, political or-

ganization, field methods, and the practical application of anthropology to human problems. Latin America has been his special interest, having done research on irrigation practices and conducted a field-school in Mexico, taught anthropology in Guatemala, and evaluated for USAID a native medical program in Peru.

Contributing Faculty:

Professor Vernon (geology)

Courses:

100. An Introduction to Physical Anthropology

Holistic treatment of human populations emphasizing both biological and cultural evolution. Man's place in nature as a culture-creating social animal. Reconstruction of human experience through primate fossil evidence, stone artifacts, ethnography, and the study of non-human primate behavior. Human variability from genetic and cultural perspectives. Role of languages in human evolution. Human adaptive strategies from the dawn of culture to the rise of civilization in both Old and New Worlds.

101. An Introduction to Cultural Anthropology

A cross-cultural perspective on the human experience. Institutions such as the family, law, religion, and warfare examined using examples from contemporary non-Western, non-industrialized societies. A brief overview of major schools of thought and the practice and ethics of anthropological research.

210. Culture and Communication A study of the function of communication systems in culture. The origin and evolution of language. Language acquisition. Primate forms of communication compared and contrasted. Genetic and anatomical factors in speech and language. Anthropological linguistics. Psycholinguistics. Socio-linguistics. Deaf Communication. Theory and structure of American Sign Language.

211. Folklore Introduction to the field of folklore and the major folklore genres. Illustration and examination of forms of folk expression such as myths, legends, folktales, jokes, riddles, and proverbs; their place, function, and meaning in society. History of folklore scholarship, current approaches to the investigation of folklore

materials, and the methodology and tools used in collecting folklore.

214. Ecological Anthropology Anthropological approaches to the study of human adaptation. Ecosystem models. Comparative study of human and non-human adaptations. Ecology and human survival. *Offered every other year.*

215. Anthropology of Law A comparative examination of conflict resolution and social control in non-Western societies. Legal systems, broadly defined, are seen as a cultural universal; societies in diverse ecological settings and at various levels of social and political complexity are compared to illustrate the relationships between law and other aspects of culture. Legal systems in egalitarian and stratified societies are compared, with special emphasis on the legal complexities of plural societies. *Offered every other year.*

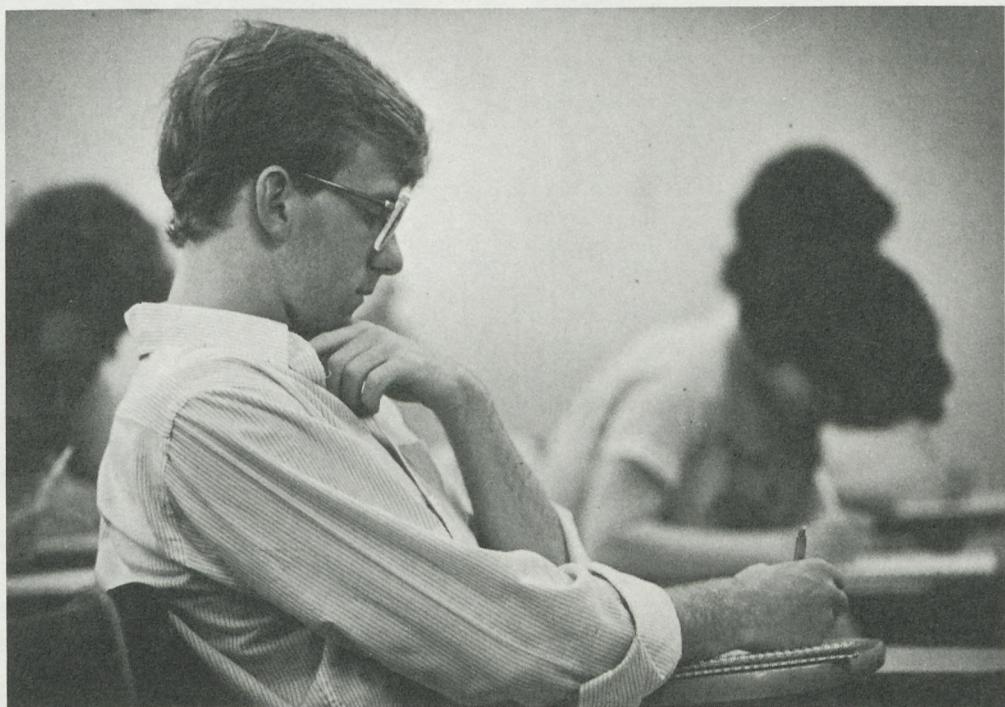
216. Medical Anthropology Examination of health behavior in cross-cultural perspective. Comparison of Western and non-Western concepts to health, disease, mental illness, and the role of the healer. Epidemiology and the effects

of disease on culture. Issues in contemporary medicine-pluralism, faith healing, holistic health.

220. Fundamentals of Archaeology Methods and techniques of modern archaeology as a sub-discipline of anthropology. A survey of culture process through time with special emphasis on North American aboriginal societies. Ecological reconstruction of human life ways. Field trips to local sites.

221. Archaeology of Latin America An archaeological and ethnological reconstruction of the rise of civilization in Mesoamerica and South America from the early hunters to the high cultures of Aztec, Maya, and Inca. Cultural consequences of the Conquest. *Offered every other year.*

222. Contemporary Peoples of Latin America An examination of the life of present-day primitive and peasant peoples of Middle and South America. These societies are seen holistically, and as they relate to urban and state centers. *Offered every other year.*



223. Cultures of the Middle East An examination of the traditional cultures of the tribal and peasant peoples of the Middle East. Pastoral nomadism as an ecological adaptation. The significance of Islam as an organizing principle in rural society. Sex roles in the Moslem world. The impact of modernization on traditional societies. *Offered every other year.*

224. Chinese Culture Prehistoric origins of Chinese civilization as revealed by archaeology. Technology, social organization, language, art and belief systems. Socio-cultural continuity and change from traditional to modern times. Cultural trends in the Peoples Republic of China.

229. Human Variation Human physical variation and environmental adaption in evolutionary perspective. Historic and contemporary socio-cultural ramifications of variation. An anthropological examination of racism. *Offered every other year.*

330. Human Evolution The human skeleton in evolutionary context. The rise of evolutionary theory. Mechanisms of evolution. Somatic and behavioral comparisons among the primates. Hominid phylogeny. Biological antecedents of culture. *Offered every other year.*

332. Anthropology of Religion A cross-cultural survey of the functions of religion, magic and myth in simple and complex societies. Religion and communication. Myth and social structure. An historical summary of the scientific study of religion. *Prerequisite: another anthropology course or permission of the instructor. Offered every other year.*

333. Theory and Method An introduction to theory and to comparative methodology in anthropology. Functionalism. British and French structuralism, componential analysis, symbolic analysis. Use and interpretation of quantitative techniques. Practical fieldwork experience and an examination of the problems inherent in participant observation. (cross-listed: Sociology 231).

390. Anthropology Seminar A specialized seminar investigating the contributions of various anthropological approaches to the understanding of cultural processes. Representative topics are: Applied Anthropology; Creationism vs. Evolution; Comparative Medical Systems; Pre-history of North America. *Prerequisite: Permission of the instructor.*

392. Anthropological Classics The course will consist of reading fundamental works in anthropology including archaeology, linguistics, physical anthropology and sociocultural anthropology. The course will meet biweekly for one semester. *One-half course credit.*

Major: Nine and one-half courses including 100, 101, 330, 333, 390, 392 and four additional courses, two of which may be outside the department with the approval of the adviser. (Sociology courses are especially recommended).

Minor: Six courses, including 100 and 101 and four additional anthropology courses. Students who are interested in a minor should consult with the department.

Astronomy

See Physics and Astronomy

Biology

The biology department provides the liberal arts scholar with a broad view of animal and plant life. Commanding this view, students see themselves as part of the biotic world rather than apart from it, and human social relationships are then recognized as only one aspect of an intricate system uniting all forms of life.

The study of biology brings together students with diverse backgrounds and very different interests in an atmosphere of inquiry to examine the biotic world. The examination process develops the skills of observation, analysis and expression, the ability to evaluate data and draw conclusions, and the art of distinguishing between substance and accident. Development of these qualities in the liberal arts student is a primary goal of the biology department's efforts.

Biology is an experimental science. Every biological fact and principle rests upon experiment and observation in the laboratory or in the field. Some good biology can still be done with a stout pair of hiking boots and a butterfly net, but for the most part expert usage of modern equipment is required. Expertise develops with "hand on" experience, and for this reason a laboratory is an essential part of General Biology and upper level courses.

The courses in the biology department provide a suitable background for students who contemplate immediate employment after commencement, as well as for those who plan to attend graduate school or a professional school. Through seminars, and independent study or research, opportunities are provided for students to develop their research skills.

The Dickinson biology department is housed in a spacious, well-equipped building, Dana Hall, which was completed in 1966. In addition to the on-campus facilities, many courses and student research projects make use of the 3,300-acre Florence Jones Reineman Wildlife Sanctuary and its field station laboratory.

Faculty:

William B. Jeffries, Professor of Biology. Chairman. Ph.D., University of North Carolina. He

teaches symbiosis, vertebrate and invertebrate zoology. His current research is focused on barnacles that attach themselves to other marine animals such as crabs and sea snakes.

Barbara B. McDonald, Professor of Biology. Ph.D., Columbia University. She teaches cytology and sponsors independent study work in cell biology. Her field of research is cell biology with an emphasis on nucleic acids in protozoa.

Paul Biebel, Professor of Biology. Ph.D., Indiana University. His instructional interests include field botany and course work involving non-vascular plants. He is interested in the sex and reproduction in lower plants, especially desmids. His other research interests are the identification and cataloguing of mosses, liverworts, and lichens. He also maintains a collection of preserved plants acquired on field excursions with students.

Richard M. Lane, Associate Professor of Biology. Ph.D., University of Maryland. His teaching interests include physiology and embryology. He is a licensed pilot, and his current research is focused on the physiological responses to high altitude.

Thomas Brennan, Associate Professor of Biology. Ph.D., Rutgers University. He teaches molecular biology and botany courses involving vascular plants. His research has included the metabolism of plant hormones and hydrogen peroxide and the effects of drugs upon certain enzymes in the mammalian liver. He is currently working on photosynthesis, particularly light modulation of chloroplast enzyme activity.

Diane M. Calabrese, Assistant Professor of Biology. Ph.D., University of Connecticut. She teaches courses in general biology, biological aspects of contemporary problems and ecology. She is a systematic entomologist with a particular interest in problems of an evolutionary-ecological nature. Her current research (analysis of taxonomic congruence among ontogenetic, cytogenetic and adult morphological characters in the Gerridae, Insecta) is funded by the National Science Foundation.

Brian D. Stephens, Instructor in Biology. He is a doctoral candidate at Rutgers University and is completing his dissertation on the effects of nitrate on the legume-Rhizobium symbiosis. His teaching interests include microbiology, genetics, and molecular genetics. He is currently working on the isolation, characterization, and transfer of bacterial plasmids.

Courses:

105. Biological Aspects of Contemporary Problems An introduction to the biological basis of contemporary problem areas. Topics covered in the past have included: human reproduction and population; pollution, drugs, medicine, and food additives; food supply and pesticides. Central to the discussion will be limitations involved in these problems and the human place within the biosphere. This course will not count toward a major or minor in biology. *Students will not receive graduation credit for Biology 105 subsequent to receiving credit for Biology 111 or 112. Three hours classroom each week.*

111, 112. General Biology The structure and function of living systems. Lectures, discussions and laboratory observations and experiments, designed to provide the informed citizen with an understanding of the fundamental principles and methods used in biology. *Three hours classroom and three hours laboratory each week.*

213. Cytology An introduction to the structure and function of cells, through lectures, readings, and laboratory work. The laboratory will include various types of micro-technique, such as sectioning and staining of tissues, radioautography, and photomicrography. *The class meets six hours each week. Prerequisite: 111, 112.*

214. Ecology Classical and modern methods of study of the interactions among organisms and their environments are discussed. The concepts of the ecosystem, the community and ecological genetics are considered in depth. Students gain experience with quantitative techniques and sharpen naturalist abilities through laboratory and field work. *The class meets six hours each week. Prerequisite: 111, 112.*

215. Animal Behavior The biological study of animal behavior. The evolutionary, physiological, and ecological aspects of the behavior of both vertebrates and invertebrates are examined. Through written reports and discussions, students apply biological concepts and methods to their observations of animal behavior in field and laboratory. *The class meets six hours each week. Prerequisite: 111, 112.*

217. Genetics Principles of heredity and their impact on population dynamics, evolution, and human society. Laboratory projects are designed to acquaint students with modern techniques of conducting genetic experiments with living organisms. *The class meets six hours each week. Prerequisite: 111, 112.*

218. Embryology The study of animal development. Approximately two-thirds of the classroom material deals with descriptive embryology and the remainder is devoted to mechanisms of development and their underlying biochemical bases. Laboratory work is evenly divided between observation of selected examples of vertebrate development and experimental investigations of developmental mental processes. *The class meets six hours each week. Open to freshmen with permission of the instructor. Prerequisite: one semester of General Biology.*

221. Invertebrate Zoology An integrated lecture and laboratory study of the anatomy, taxonomy, evolution, ecology, physiology, and embryology of invertebrates. Representatives of the major invertebrate phyla are examined in the field and in the laboratory. *The class meets six hours each week. Prerequisite: 111, 112. Offered every other year.*

222. Field Study of Plants A systematic survey of the plant kingdom through the collection and study of living plants. Frequent field trips are conducted as weather permits. An herbarium of named plants is prepared. Emphasis will be placed on the diverse features of plants which permit effective study of fundamental biological problems. *The class meets six hours each week. Prerequisite: 111, 112.*



223. Algae and Fungi An integrated laboratory and classroom study of morphology and physiology of algae and fungi and the taxonomy of fungi. Emphasis will be placed on making accurate observations, using experimental techniques, analysing and recording data accompanied by accurate, precise interpretation, documentation, and communication of scientific concepts. *The class meets six hours each week. Offered every other year. Prerequisite: 111.*

225. Vascular Plants: Structure and Function A lecture and laboratory study of the anatomy and physiology of higher plants. Structure-function relationships in the cells, tissues, and organs of vascular plants, growth and development, photosynthesis, and selected additional topics will be studied. *The class meets six hours each week. Prerequisite: 111, 112.*

226. Microbiology The taxonomy, physiology, and heredity of bacteria, and viruses. Laboratory projects are designed to provide technical competence in handling micro-organisms. *The class meets six hours each week. Open to freshmen with permission of the instructor. Prerequisite: one semester of General Biology.*

227. Lichens and Bryophytes An integrated laboratory and classroom study of morphology and physiology of lichens and bryophytes and the taxonomy of lichens. Emphasis will be placed on making accurate observations, using experimental techniques, analysing and recording data accompanied by accurate, precise interpretation, documentation, and communication of scientific concepts. *The class meets six hours each week. Offered every other year. Prerequisite: 111.*

233. Physiology A study of physiological mechanisms in the animal kingdom, stressing the structural and functional bases of biological activities. Emphasis is on vertebrate organs and organ systems. *The class meets six hours each week. Prerequisite: 111, 112.*

234. Vertebrate Zoology An integrated lecture and laboratory study of the anatomy, embryology, physiology and evolution of vertebrates. Representatives such as the lancelet, lamprey, shark, perch, mud puppy, pigeon, chicken, and rat are studied from the perspective of functional anatomy. *The class meets six hours each week. Open to freshmen with permission of the instructor.*

301. Special Topics An in-depth study of specialized subject areas of biology. A recent topic was: Experimental Virology. Topic, course structure, credit, and instructor will be announced by pre-registration. *Prerequisites: at least two upper level biology courses, and permission of the instructor. Offered occasionally.*

312. Seminar Reading, conference, writing, and oral presentation of reports. Some recent subjects were: Mammalian Reproduction, Viruses, Plant Pathology, Community Ecology, and Cells in Culture. *Prerequisite: Permission of the instructor. One-half course.*

321. Symbiosis A concentrated study of the biology of association between dissimilar organisms, including representative parasites of man. Readings in the recent literature, examination of different levels of intimacy through selected field and laboratory exercises with living and preserved organisms, and directed individual research projects exploring less well known associations will be employed in the learning experience. *The class meets six hours each week.* *Prerequisites: Biology 111,112, and one upper level biology course, and permission of the instructor. Offered every other year.*

332. Molecular Biology A lecture and laboratory study covering the metabolism of the major classes of molecules found in living systems. Includes metabolic pathways, enzyme structure and function, DNA, RNA, and protein synthesis, metabolic disorders, and other selected topics. The laboratory is designed to acquaint the student with the biochemical methods used to study the properties and behavior of biological molecules and their functions in cellular metabolism. *The class meets six hours each week. Prerequisite: 111, 112, Chemistry 251, 252 or permission of the instructor.*

Major: seven courses, including one of the following upper-level courses in botany: Biology 222, 223, or 225, and one of the following upper-level courses in zoology: Biology 215, 218, 221, 233, or 234. In addition, Chemistry 131, 132, 251, 252; Math 161, 162; Physics 111, 112, or 131, 132 are required. The seven biology courses required for the major may not include more than one course in independent study or research unless the student has received advanced placement beyond Biology 111-112, then two courses of independent study or research may be counted toward the major. Of the seven biology courses required for the major, at least three must be upper division laboratory courses (exclusive of independent study-research) taken in residence at Dickinson.

Minor: six courses, including one of the following upper-level courses in botany: Biology 222, 223 or 225, and one of the following upper-level courses in zoology: Biology 215, 218, 221, 233, or 234. In addition, Chemistry 131, 132 are required.

Note: A student intending to receive certification from the Pennsylvania Department of Education at the time of graduation must include within his or her program a course in botany, a course in genetics and a course in ecology. Students who contemplate graduate work in biology are encouraged to gain familiarity with one or more foreign languages (especially French, German, Russian), and to consult with their faculty advisers about taking additional courses in other sciences.

Chemistry

The chemistry department provides students with knowledge and understanding of the composition, structures, properties, and transformations of natural and manmade substances through lectures, problem-solving exercises—laboratory work, research opportunities, and outside speakers. The department maintains an informal, personalized atmosphere in which students, faculty and support staff can work and talk with each other as friends. Qualified majors have the chance to help the department and other students as tutors or teaching assistants.

The courses in General Chemistry (Chem. 103,104,111,112) are offered for students who wish to acquire or strengthen a background in chemistry but do not plan a career in science. The department feels keenly the need for citizens with some exposure to and appreciation of the questions, methods, and results of science and of its limitations as well. The Principles of Chemistry course (Chem. 131, 132) provides an in-depth introduction to chemistry for students planning to take further chemistry courses or to take a major in a science. Students considering a major in chemistry should schedule Principles of Chemistry their first year in order to allow time for a wider choice of electives in their upperclass years.

The advanced courses offered by the department are designed to meet the needs of students who are preparing for graduate work in chemistry or related areas, for medicine, dentistry, or other health professions; for high school teaching of chemistry; and for a wide variety of chemistry-related positions in industry and government. These courses provide background in the major subfields of chemistry, and those numbered above 350 provide the opportunity for advanced or specialized work.

The department has well-equipped laboratories for teaching and research, a chemistry library, a seminar room, stockrooms, classrooms, and faculty offices in Althouse Science Hall.

The chemistry department program and facilities are fully accredited by the American Chemical Society.

Faculty:

Gerald C. Roper, Professor of Chemistry. Chairman. Ph.D., Boston University. Physical-inorganic chemistry. His research areas include chemical thermodynamics, kinetics, and both theoretical and experimental molecular spectroscopy. He has a current interest in transition metal chemistry, specifically in complexes of gold.

Robert E. Leyon, Associate Professor of Chemistry. Ph.D., Princeton University. His interests lie in analytical chemistry, especially spectroscopic methods of trace metal analysis, computer use in chemistry, and environmental chemistry. Two current projects are water quality surveys in two local streams and editing computer programs for use in various departmental courses.

William R. Schearer, Associate Professor of Chemistry. Ph.D., Princeton University. His major interest is the chemistry of natural products, particularly the chemistry and biochemistry of nutrition. His continuing laboratory research project is the synthesis of new and potentially useful organic compounds containing the tetrahydrofuran ring system. Other interests are in applied chemistry, chemical safety, and effective methods of teaching chemistry.

Richard M. Sheeley, Associate Professor of Chemistry. Ph.D., Brigham Young University. He specializes in the medicinal and biological aspects of organic chemistry, especially the relationship of molecular structure to physiological activity. His research has centered on the synthesis and structural elucidation of drugs affecting the central nervous system, the chemistry of chocolate, applications of high performance liquid chromatography, and the effect of food additives on pre-adolescent hyperkinesis. (On leave spring 1985)

Scott A. Davis, Assistant Professor of Chemistry. Ph.D., University of Virginia. His general field of interest is physical-quantum chemistry and spectroscopy, particularly the theoretical and empirical relationships between a molecule's environment and its spectroscopy. Theoretical

considerations include group theory and quantum chemistry. Current interests are in spectroscopic studies of lanthanide complexes in solution.

Scott Hill, Instructor in Chemistry. B.A., Gettysburg College. Medical and biological chemistry are his specialties. His current research is in azabicyclo chemistry as well as enzyme inhibitors as potential therapeutic agents.

Courses:

***103,104. General Chemistry** Similar to *111, 112 below except that a term paper is required in place of laboratory work. For students planning to major outside the sciences. *Three hours a week classroom. This course will not satisfy the one-year laboratory science distribution requirement. Either course will, however, count as the third required course in Division III. If students elect to take 131,132 in addition to 103,104, graduation credit will be dropped for 103,104 due to similarity in course content.*

***111,112. General Chemistry** Some fundamental concepts of atomic structure, bonding, states of matter, and chemical reactions. Basic principles of organic chemistry and biochemistry. Applications in everyday life are emphasized. *Three hours classroom and two hours laboratory a week. This course sequence will not count toward major or minor requirements in Biology or Chemistry. Students who decide to pursue chemistry courses beyond the 100 level, after completion of 111 or 112, may with the approval of the department be allowed to enroll in 132. Students will not normally receive graduation credit for both 111 and 131, or both 112 and 251.*

***131,132. Principles of Chemistry** Atomic and molecular structure, states of matter, chemical equilibrium, kinetics of reactions, thermodynamics, electrochemistry, coordination compounds, and the periodic table. The laboratory work is designed to illustrate and reinforce material presented in lectures. High school chemistry is expected of students in this course; those without it will have to do extra work in the first month to catch up. *Three hours classroom and three hours laboratory a week.*

***251,252. Organic Chemistry** The chemistry of carbon compounds. The various functional groups and their transformations are studied systematically. Reaction mechanisms, the formulation of synthetic schemes, stereochemistry, and the application of these principles are emphasized. Laboratory work involves the preparation and analysis of organic compounds. *Three hours classroom and four hours laboratory a week. Prerequisite: 132.*

282. Quantitative Analysis A survey of fundamental classical and instrumental methods used for the quantitative analysis of substances. Emphasis on statistics, solution stoichiometry, equilibrium, and techniques used in making laboratory measurements. *Three hours classroom and four hours laboratory per week. Prerequisite: 132.*

***331,332. Physical Chemistry** The fundamentals of chemical thermodynamics, kinetics, and quantum mechanics introduced as a unifying basis for the discussion of chemical and phase equilibria, electrochemistry, reaction mechanism, spectroscopy, and atomic and molecular structure. *Three hours classroom a week. Prerequisite: 131, 132, Physics 111, 112 or 131, 132 and Mathematics 161, 162.*

***337,338. Experimental Physical Chemistry** (normally taken concurrently with 331, 332) Quantitative experiments in calorimetry, chemical and phase equilibria, surface phenomena, chemical kinetics, electrochemistry, spectroscopy and molecular structure. Scientific report writing and the analysis of data are stressed. *Four hours laboratory a week. Prerequisite: 282,331,332. One-half course each semester.*

353. Advanced Organic Laboratory Methods Modern techniques and equipment for isolation, purification, identification, and synthesis of organic compounds. Emphasis on instrumental methods of structure elucidation, problem solving, and current chemical literature. *Three hours classroom and four hours laboratory a week. Prerequisite: 252.*

431. Inorganic Chemistry Atomic and molecular structure, modern principles of chemical bonding, chemical trends and the periodic table,

coordination chemistry, reaction mechanisms of ligand substitution, transition metal chemistry, and chemistry of selected transition and representative elements. *Three hours classroom a week.* Prerequisite: 332.

472. Biochemistry Introduction to the chemistry of living systems, with emphasis on their molecular structures, chemical properties, metabolic pathways, and energetics. The chemical bases for biological phenomena are extensively examined. *Three class hours per week.* Prerequisite: 252.

483. Instrumental Analysis Basic principles of instrumentation, followed by a survey of electrical, nuclear, chromatographic, thermal, and (especially) spectroscopic methods of analysis. Emphasis is on underlying principles rather than on particular instruments. Prerequisite: 282 and 332.

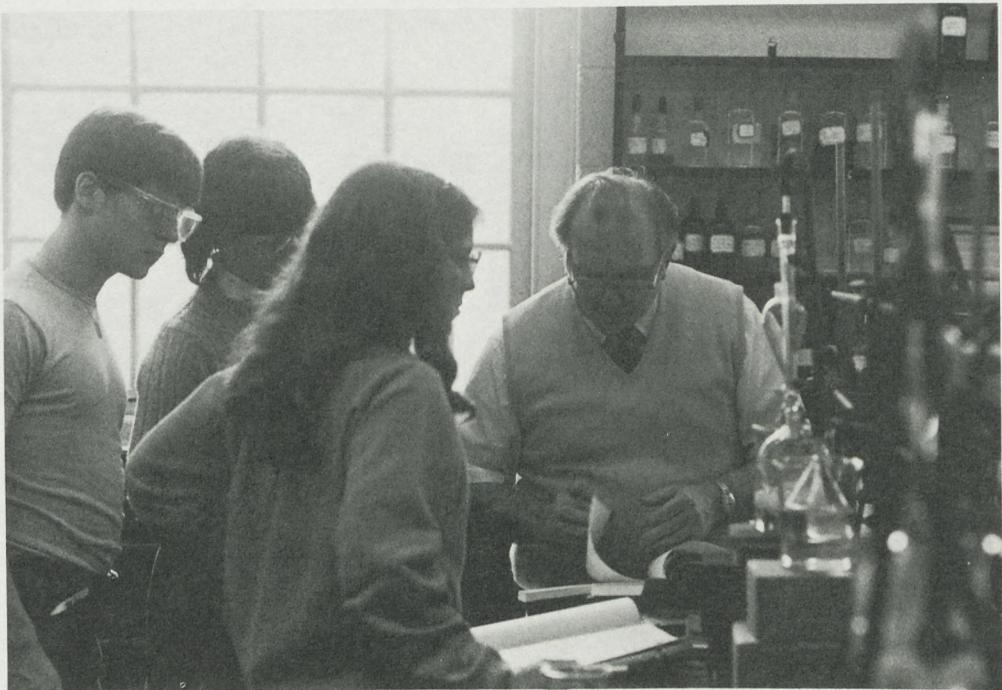
490. Advanced Topics in Chemistry Topics may be drawn from areas such as heterocycles, natural products, medicinal chemistry, food and nutrition, industrial chemistry, organic synthe-

sis, inorganic synthesis, nuclear magnetic resonance, measurement including computer applications, spectroscopy, statistical thermodynamics and catalysis. *Three hours classroom per week.* Prerequisite: Permission of the instructor.

Major: ten courses, including 131, 132, 251, 252, 282, 331, 332, 337, 338 and two courses chosen from 353, 431, 472, 483, 490 and Geology 303 (Geochemistry). In addition, Physics 111, 112 or 131, 132 and Math 161, 162 are required.

Minor: six courses, including 131, 132.

Note: Any student desiring certification by the American Chemical Society should satisfactorily complete: 131, 132, 251, 252, 282, 331, 332, 337, 338, 353, 431 and 483; one course of independent research or independent study with laboratory; and one course from 472, 490, advanced physics, or advanced mathematics. Courses in advanced mathematics, computer science, and German or Russian are strongly recommended. Apply through the department chairman.



Chinese

Considering the impact China has had throughout Asian history and now the world at large, China cannot be ignored. Chinese language study is an excellent means to become acquainted with this important political and cultural force.

Courses in Chinese at Dickinson are designed to offer students a sufficient background in the language so that they would be prepared for either classical or modern Chinese study. Classwork emphasizes speaking, reading, and writing modern Mandarin, also called *Guoyu* or *Hanyu*, the national language of both the People's Republic of China and Taiwan. Recognizing the differences in the political, social, and language spheres between the PRC and Taiwan, classes incorporate important elements of both. The romanization system for the class is that officially adopted by the PRC, *pin yin*. Both the traditional characters, used in Taiwan and by overseas Chinese, and throughout China's history, and the simplified characters, instituted under Communist China, are studied in class. So also are the social customs reflected in the language of both countries.

The four semester sequence covers language texts in spoken and written Chinese, dictionary use in translating, and oral practice with language tapes. Students are also exposed to various pieces from China's literary history, including traditional poetry, contemporary short stories and Communist writings.

Although there is no major or minor offered in Chinese language, completion of the four semester sequence does fulfill the College's foreign language requirement. Study of Chinese may be incorporated with majors such as International Studies, or self-developed majors may be organized with a speciality in Chinese studies.

Faculty:

Carol M. Derrickson, Part-time Instructor of Comparative Civilizations. M.A., University of Pennsylvania. Her teaching includes beginning and upper-level Chinese language courses, and other Asian-related courses, such as Chinese Literature in translation. She is currently instructor of Tai Ji Quan (T'ai Chi Ch'uan), a Chinese martial art, in the Physical Education Department. Her research is in the status of women in China; she continues practicing Chinese painting and calligraphy as a past time.

Courses:

101-102: Elementary Mandarin A study of the fundamentals of the Chinese language, including its grammar, pin yin romanization, reading and writing traditional and simplified characters, and conversational skills. *Offered every other year, depending upon demand.*

211,212: Intermediate Mandarin A development of the oral and written skills of elementary language study, to which is added an introduction to dictionary use in translating original Chinese literary pieces. *Offered every other year, depending upon demand. Prerequisite: Chinese 102.*

Classical Studies

Isocrates wrote, "Past deeds are indeed a common legacy to us all. But to make proper use of them, to conceive rightly their details and document them with polish is the gift of those who think." Courses in classical languages give opportunity for such thought about the past. Drawing upon the literature, history, and culture of Greece and Rome, students are challenged to examine the details of antiquity and to find the inspiration and practical wisdom of peoples faced with problems similar to those of today.

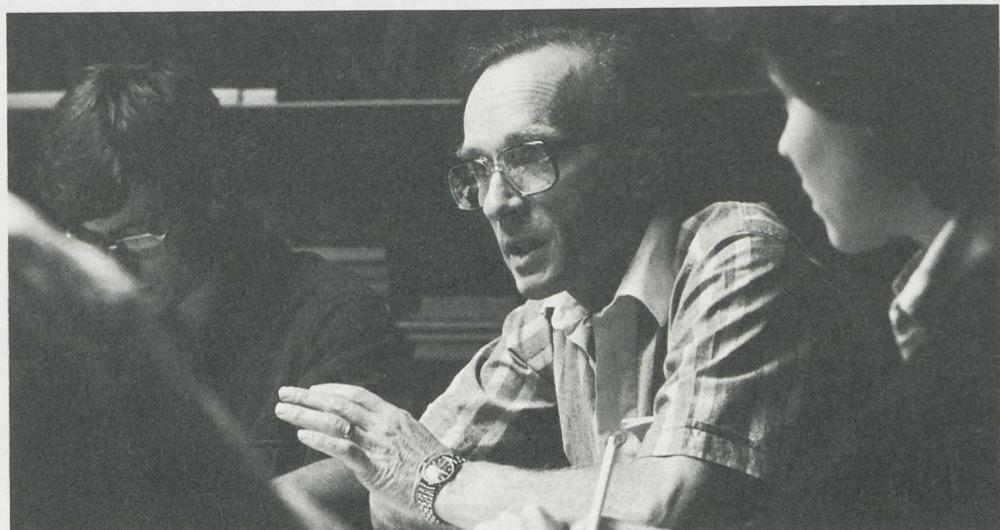
Courses offered by the department acquaint students with those Greek and Latin authors whose greatness stands undiminished by the judgment of time. The department concentrates on a few of these authors spanning the eighth century B.C. to the Christian era of the late Roman period. The program includes both elementary and advanced courses, with majors in either Latin or Greek. Hebrew texts are also studied in the department in recognition of their role as significant sources of ancient life. For students interested in studying the classical world in the record of its monuments, the department offers a series of courses in archaeology, from the Mycenaean Bronze Age through the late Roman empire.

Dickinson College is affiliated with the Inter-collegiate Center for Classical Studies in Rome, administered by Stanford University, and majors are thus afforded an opportunity to study within sight of the monuments themselves.

Recent graduates of the program have gone to such graduate schools as Harvard, Michigan, Ohio State, Princeton, Cambridge, Dublin, and Oxford. All majors of recent years who wished to continue their education in classics have been accepted to programs of their choice. Many, however, have chosen to teach on the secondary level, and there will continue to be a need for teachers of Latin in high schools, private or public. Many students have chosen to major in classical languages as preparation for professional training, law school, theological seminary, and even medical school.

Faculty:

Philip N. Lockhart, Professor of Latin. Chairman. Ph.D., Yale University. His Latin research centers on Vergil and Vergilian interpretation, especially the Georgics and Servius' commentaries on the poetry. In Greek he has published on Homeric language and Hellenistic epigraphy. Another field of research is ancient cattle raising. For his teaching he extends into linguistics and literary criticism.



Robert D. Sider, Professor of Classical Studies. D. Phil., Oxford University. Scholarship focuses on Early Christian literature and, in the Renaissance, the New Testament work of Erasmus. He has published on the continuation of the classical tradition of rhetoric in Tertullian, and on the relation between literature and theology in Christian writing of the second century A.D. Interests include Roman history and late Hellenistic philosophy.

Stanley N. Rosenbaum, Associate Professor of Religion and Classics. Ph.D., Brandeis University. He has taught virtually everything in Judaica from Adam to Zionism, but feels especially at home in Hebrew Bible and in American Jewish history. Current research centers around a commentary on the Book of Amos.

R. Leon Fitts, Associate Professor of Classical Studies. Ph.D., Ohio State University. He specializes in ancient history, archaeology, Thucydides, and Catullus. His scholarship has focused on fifth century Athens and Roman Britain, particularly on the Brigantes of that province of Rome. Other interests include Greek and Latin epigraphy and ancient sports.

Mary E. Moser, Assistant Professor of Classical Studies. Ph.D., University of Pennsylvania. Her teaching includes Homer, Cicero and Roman historians, in addition to Etruscan and Roman archaeology. Her research specialization falls in the archaeology of the Italic Iron Age period, and Etruscan pottery.

Rosalind D. Rosen, Part-time Instructor in Latin. M.A., University of California at Berkeley. She offers instruction in the introductory level Latin courses. Her academic interest is in Roman History.

Elizabeth A. Lockhart, Part-time Instructor in Latin. M.A., Yale University.

Classical History

251, 252. Hellenic History First semester: a study of Minoan and Mycenaean civilization, the Homeric problem and rise of the polis, the Persian Wars, and the development of Athenian

democracy to 478 B.C. Second semester: Greek history from 478 to 323 B.C. *Alternates with 253, 254. Offered every other year.*

253, 254. Roman History First semester: a study of the Roman state from prehistoric times to the end of the republic. Second semester: Roman history from the establishment of the Principate to the death of Justinian, 565 A.D. *Offered every other year.*

Greek

101-102. First-Year Greek Drill on the fundamentals of Greek grammar and the study of vocabulary. Selected prose, such as Plato's Euthyphro and Crito, are read in the second semester. *Please refer to Graduation Requirements (Languages).*

211, 212. Second-Year Greek First semester: an introduction to Homer's Iliad. Second semester: the reading of selected tragedies of Euripedes. *Prerequisite: 101-102 or the equivalent.*

214. The Greek New Testament Readings in Greek from the New Testament with additional selections from the non-canonical literature of early Christianity. Consideration will be given to syntax and style as well as to the thought and intention of the writers. Topics may vary from year to year.

233. Herodotus A study of Herodotus as historian. *Prerequisite: 211,212 with a grade of at least C. Offered every other year.*

234. Homer A study of the Odyssey, with comparative readings in Hesiodic epic. *Prerequisite: 211,212 with at least C. Offered every other year.*

391,392. Seminar: Greek Drama A study of the Greek theater, with special emphasis on tragedy and comedy as literary types. *Offered every other year. Prerequisite: 233 or 234 or permission of the instructor.*

393. Research Seminar A reading, research, and conference course on selected areas of Greek literature. *Offered every other year. Prerequisite: 233 or 234 or permission of the instructor.*

Major: ten courses numbered 102 or above. Classical Studies 251 and 252 may be counted toward this requirement. Philosophy 391 may be substituted for either of these Classical Studies when the subject matter is Plato.

Minor: six courses numbered 102 or above. Classical Studies 251 or 252 may be counted toward this requirement, but not both.

Note: It is recommended that majors elect Fine Arts 202.

Hebrew

101-102. **First-Year Biblical Hebrew** Fundamentals of Hebrew morphology and grammar. Second term includes readings from Biblical narrative texts. *Please refer to Graduation Requirements (Languages).*

211, 212. **Second-Year Hebrew** Review of grammar, rapid reading of selected texts; Book of Amos in the second semester. *Prerequisite: 101-102 or the equivalent.*

Note: A major and minor are not offered in Hebrew. Interested students should refer to the Judaic Studies program.

Latin

101-102. **First-Year Latin** Drill in the fundamentals of Latin grammar and vocabulary. Selected prose from the Roman Republic is read in the second semester. *Please refer to Graduation Requirements (Languages).*

111, 112. **Second-Year Latin** Review of Latin syntax. Readings from Cicero in the first semester, Vergil's Aeneid in the second semester. *Prerequisite: 101-102 or the equivalent.*

233. **Roman Historians** Readings from Roman historians, with particular emphasis on Livy. *Prerequisite: 111 or 112.*

234. **Latin Poetry** Horace, Odes and Epodes; Catullus; the Elegists; Ovid. The topic varies from year to year. *Prerequisite: 111 or 112.*

331. **Cicero** Essays and letters, with stress on intellectual life of the age of Cicero. *Offered every third year. Prerequisite: 233 or 234.*

332. **Vergil Aeneid VI-XII**, studied in the light of ancient poetical theory and the epic tradition. *Offered every third year. Prerequisite: 233 or 234.*

341. **Caesar** *The Bellum Civile*, with special stress on Caesar as prose stylist. The nature and purpose of the Commentaries as a literary type. *Offered every third year. Prerequisite: 233 or 234.*

342. **Lucretius** The Philosophy and poetry of the *De Rerum Natura*. *Offered every third year. Prerequisite: 233 or 234.*

351. **Juvenal** The nature of rhetorical poetry. Careful reading of the Satires. *Offered every third year. Prerequisite: 233 or 234.*

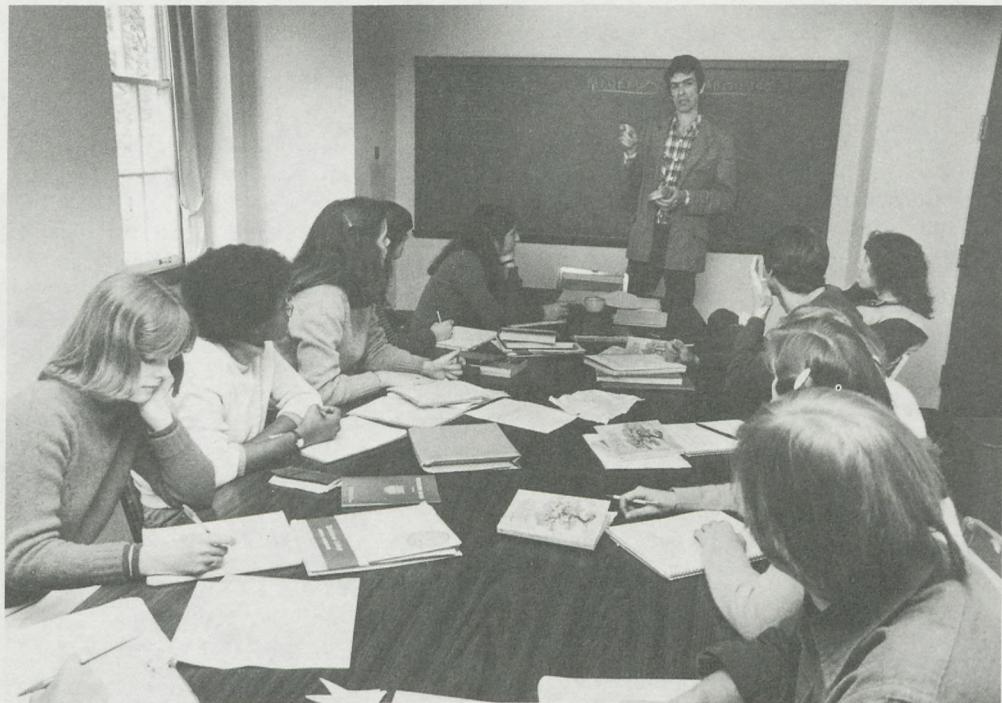
352. **Tacitus** Readings in the Annals and shorter works. Tacitus as historian and historical source. *Offered every third year. Prerequisite: 233 or 234.*

391, 392. **The Latin Language** First semester: introduction to historical grammar and syntax. Second semester: the syntax of Classical Latin. *Offered every other year. Prerequisite: 233 or 234 or permission of the instructor.*

393, 394. **Seminar** Readings and conferences in a special topic of Latin literature. Introduction to research in classical studies. *Offered every other year. Prerequisite: 233 or 234 or permission of the instructor.*

Major: ten courses numbered 111 or above, including 111, 112, 233, 234; or the equivalent of these courses. Classical Studies 253, 254 may be counted toward this requirement.

Minor: six courses numbered 111 or above, including 111, 112, 233 or 234. Classical Studies 253 or 254 may be counted toward this requirement, but not both.



Comparative Civilizations

The Comparative Civilizations Program is intended to orient liberal education, in some systematic manner, to the experience of mankind as a whole. Comparative civilization studies are concerned with the multiple problems of construction and living within major alternative civilizational designs and the light which the comparison of diverse civilizations can throw on our understanding both of our own traditions and of the ways in which civilizational phenomena of any kind arise from the experiences of human beings and give coherent shape to them.

The Comparative Civilizations Program consists of all courses offered at Dickinson College that focus on either (a) comparison of civilizations or of their essential components or of the historical processes by which they have evolved or disintegrated or (b) encounters between particular civilizations or between a civilization and less complex societies, in either case provided

that at least half of the time in the course is devoted to materials from outside of the traditions that have shaped the modern West or entered into its composition. Courses offered by particular departments which also meet the criterion for the Comparative Civilizations Program and the comparative civilizations distribution requirement (See Graduation Requirements: Distribution) will be listed each semester in the Preregistration Booklet. In addition the program itself offers four courses.

Faculty:

Vytautas Kavolis, Professor of Sociology. Ph.D., Harvard. His past publications include works on the sociology of art, comparative social problems, and cultural psychologies. His current research is on empirical mapping of moral cultures, comparative histories of self-hood and sociability, social and cultural movements, welfare society and its predicaments, and encounters of religion and secularity. (On leave 1984-85)

Harry Krebs, Associate Professor of Comparative Civilizations. Coordinator. Ph.D., Temple University. His various teaching responsibilities in different departments cover the arts, religions, and philosophies of Asian Civilizations. His research interests are in Buddhist epistemology, comparative studies of aesthetic sensibilities, and modern Japanese thought.

Neil B. Weissman, Associate Professor of History. Ph.D., Princeton University. His areas of specialization involve the comparative history of Russia, Japan, and Germany, with emphasis on the impact of modernization on traditional societies and cultures. His research deals with revolution and political change in late Tsarist and early Soviet Russia.

Contributing Faculty:

Carol M. Derrickson, Part-time Instructor (comparative civilizations) (see also Chinese).

Courses:

102. Selected Problems in Civilizational Analysis Exploration of some problem of general human significance as it has been dealt with by two or more of the world's major civilizations.

105. Non-Western Civilizations A sustained study of a particular non-Western civilization: India, China, Japan, civilizations of the Middle East, Africa, or ancient America.

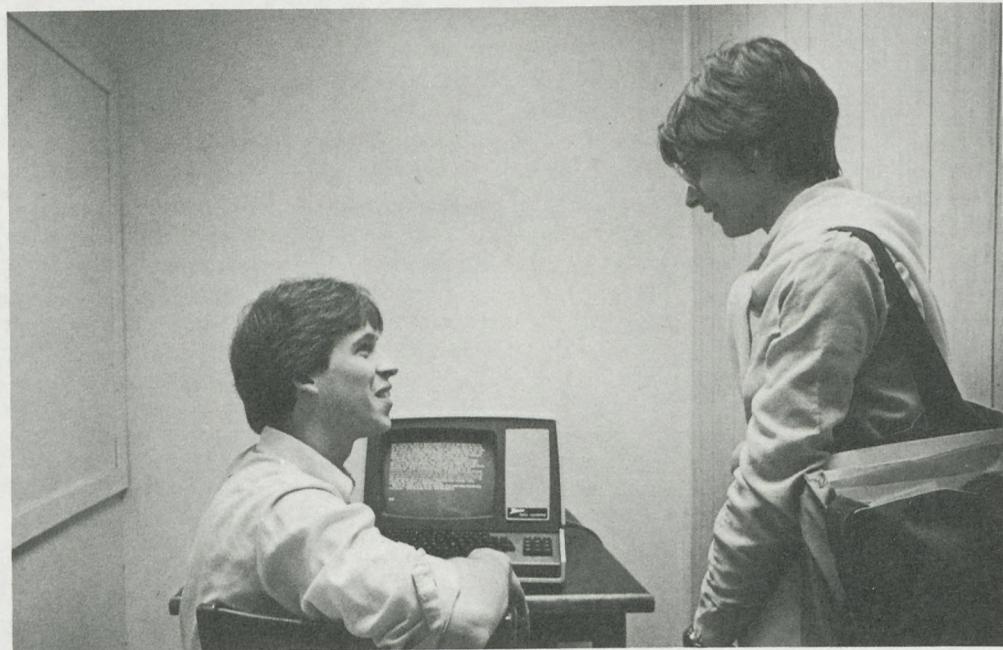
200. Special Topics in Non-Western Studies Exploration of topics of general human significance as they have been dealt with in one or more of the world's non-Western civilizations.

490. Issues in Comparative Civilizational Studies A faculty-student seminar intended for the joint discussion of questions of method and substance arising in the comparative study of civilizations. *Prerequisite: Permission of the instructor(s).*

No major or minor is offered in the program. Interested students should explore the feasibility of a self-developed major, proposed in cooperation with the Committee on Comparative Civilizational Studies.

Computer Science

See Mathematical Science



Dramatic Arts

While not particularly useful to those who wish to enlarge their possessions or raise their station in society, courses in dramatic arts are presented for those who wish to develop their histrionic capacity. We believe this capacity is shared by all and is to be enriched by the study of the techniques and history of theatrical expression. The courses are offered not only for that purpose but also for the sake of the College's cocurricular programs. The Mermaid Players, the Freshman Plays, lab shows, and the Dance Theatre Group all benefit from the contribution of those students who study dramatic arts.

Faculty:

David Brubaker, Professor of Dramatic Arts. Chairman. B.A., Franklin and Marshall College. He combines his teaching with acting in the professional theatre. His interest in theatre history has focused on Renaissance and on Japanese theatre forms.

Sheila Garvey, Instructor in Dramatic Arts. M.A., Northwestern University. She is a doctoral candidate at New York University and is writing her dissertation on the History of the Circle in the Square. She has acted with the Circle and with the Williamstown Theatre Festival. She is interested in directing, particularly the plays of Chekhov and Williams.

Christine Vilardo, Assistant Professor of Dance. M.Ed. Temple University. She has taught and choreographed for Temple, Bryn Mawr College, and The Tanzfabrik, a studio which she founded and directed in Berlin, West Germany. She is the director of Moving Target, a performance group based in central Pennsylvania.

Jim Drake, Designer and Technical Director for the Mermaid Players. B.A., Dickinson College. He has taught and designed at Goddard College. His particular artistic interests are theatrical design and lighting.

Courses:

101. The Medium of Movement An exploration of physical experience as a source for dance and other art forms. Through assigned exercises, game structures, semi-improvisational tasks, and out of class projects, the student gains an understanding of the movement possibilities of the body and of their potential application to the formal disciplines of dance, music, theatre, and fine arts.

102, 103. Theatre History A study of the forms of theatre created by the great civilizations. In 102, the theatres of the Antique world, of Medieval and Renaissance Europe and the London Stage to 1800 are studied. In 103, the theatre of the Orient is surveyed with emphasis on Japanese forms, along with the history of American Theatre and that of Modern Europe.

106,107. Modern Dance Instruction in contemporary dance techniques designed to develop movement concepts and skills. *One half course each semester.*

108,109. Introduction to Ballet Instruction in classical ballet technique along with a study of ballet as a performing art. *One half course each semester.*

111,112; 211,212; 311,312; 411,412. Ballet Instruction I, II, III, IV Open to students with previous experience in ballet who wish to continue ballet instruction at one of four levels: I. The basic level; II. The intermediate level, open to students who demonstrate a basic technique; III. The advanced level, open to students who demonstrate substantial technical skill; IV. The performance level, open to students competent to perform ballet. One half or one course may be taken each semester. Placement by audition at the Central Pennsylvania Youth Ballet, where all classes are held. *Each course may be repeated for credit with permission of the instructor. These courses do not fulfill distribution requirements.*

200. Stagecraft A studio course studying the theory and practice of production: scene construction, rigging painting, lighting, properties. Basic skills in mechanical drawing, carpentry, electricity, painting, and the manipulation of



various scenic materials will be developed. Student participation in Mermaid Players productions will provide practical application of theoretical material. *Open to freshmen with permission of the instructor. Offered in alternate years.*

201. Acting An introduction to the principles and theories of acting combined with practical exercises. One hour of classroom and five hours of laboratory a week. *Prerequisite: 101 or 106 or 108 or equivalent.*

301. Special Topics in Performance and Production An examination of selected aspects of theatrical experiment, theory, and practice. Topics chosen at the discretion of the instructor and in consultation with students, e.g., advanced study in various aspects of production, design, performance, and staging. Specific topics to be announced before registration. *Open to sophomores with permission of the instructor. Offered in alternate years.*

304. Studies in Theatre History Research and discussion in selected areas and problems. Specific topics announced each year. *Prerequisite: junior or senior status or permission of the instructor. Offered in alternate years.*

305. Directing A study of the stage director's work: the use of analysis, picturization, composition, movement, tempo, and acting in staging a one act play. *Prerequisite: 201.*

The Mermaid Players The College drama program, staging three major productions each year. Try-outs, held before each production, are open to all students.

Dance Theatre Group The College program in dance, presenting student choreography, is open through audition to everyone in the College community. A major concert and other performances are given each year.

The Freshman Plays A program of one act plays presented each Fall by student directors with Freshman students in the casts.

Lab Shows A laboratory program sponsored by The Mermaid Players to encourage and provide for a series of experimental productions.

Economics

Thomas Malthus said almost 200 years ago, "Political economy is perhaps the only science of which it may be said that the ignorance of it is not merely a deprivation of good, but produces great positive evil." The department of economics offers a program of study designed to facilitate an understanding of our economy and other economic systems from divergent and critical perspectives. More specifically, the major provides a useful knowledge of the theoretical, statistical, and historical approaches to the study of a broad range of contemporary domestic and international economic problems and policy issues. These include such problems and issues as economic decision-making, efficiency, unemployment, inflation, government spending, taxes, regulation, distribution of income, alienation, industrial concentration, foreign trade, and third-world poverty. In addition to economics course offerings in these areas, the department serves the general college community by offering business course sequences in accounting and finance.

Students have the opportunity to develop writing and research skills by engaging in economic research. These research projects allow students to broaden their knowledge in areas of particular individual interest. Economics majors also have the opportunity to hear ethical and moral principles on the study of economics. Knowledge is seen in the classical liberal tradition as a guide to individual action in order to improve the human condition as well as enhance the individual.

The major in economics meets a broad range of individual needs in both career choices and graduate study. It offers a fine preparation for graduate study in economics, law, business, and public administration. The graduate in economics will have acquired analytical skills, communicative capabilities, as well as statistical and computer skills which can provide entree to promising careers in either private or public enterprise.

Faculty:

A. Craig Houston, Professor of Economics. Ph.D., The Pennsylvania State University. He has two emphases in his teaching. His interest in macroeconomics finds expression in the traditional introductory, intermediate macroeconomics, and banking courses. His interest in nonrenewable resources, technology, energy, land use, and the ecosystem is reflected in his approach to the history of economic thought and in environmental economics. He is currently working on energy economics and on decentralistic economics.

Charles A. Barone, Associate Professor of Economics. Chairman. Ph.D., The American University. His interest is in political economy with emphasis on international and third world studies. His current research is on the South Korean economy and U.S. reindustrialization. His secondary interests are in the labor movement, economic democracy, history of economic thought, and economic inequality.

Trevor L. McClymont, Assistant Professor of Economics (Accounting); M.B.A., Andrews University; C.G.A. (Certified General Accountant) Ontario, Canada. He specializes in accounting and other business-related subjects. Prior to going into teaching he was employed for twelve years with various business firms as Manager Financial Planning and Analysis and Controller. He is interested in the behavioral implications of accounting and contemporary business issues.

Gordon Bergsten, Assistant Professor of Economics. Ph.D., University of California, Berkeley. He specializes in comparative economic systems and history of economic thought. Other interests include Economic history and institutional economics. His current research explores the impact of values on private and public decision making.

Kenneth Slaysman, Assistant Professor of Economics. Ph.D., Pennsylvania State University. He specializes in Public Finance, Industrial Organization, labor economics, and applied microeconomics. Other interests include public policy and the economics of health care.

Vincent A. LaFrance, Instructor in Economics. B.S., University of Delaware. Microeconomic Theory, Industrial Organization, and Antitrust and Regulation comprise his primary fields of interest. His current research for his Ph.D. dissertation involves an examination of the U.S. television receiver industry and the problem of TV imports. His other interests include economic thought before Adam Smith and the role of values in economic life.

William K. Bellinger, Instructor in Economics. M.S. (Labor Relations), Cornell University. His teaching interests include economic theory, labor economics, labor relations, and urban economics. Current research interests include the economics of collective bargaining and union behavior, and the economics of segregation.

Courses:

111. Introduction to Microeconomics A study of the fundamentals of economic analysis and of basic economic institutions, with particular emphasis upon consumer demand and upon the output and pricing decisions of business firms. The implications of actions taken by these decision-makers, operating within various market structures, upon the allocation of resources and the distribution of income are examined. Special attention is given to the sociopolitical environment within which economic decisions are made. *Not open to students who have taken Economics 121.*

112. Introduction to Macroeconomics A study of the fundamentals of economic analysis and of basic economic institutions, with particular emphasis upon national output, employment, and price levels. The monetary and financial system is explored together with problems of economic stability. Monetary and fiscal policy procedures are analyzed and evaluated in light of the current economic climate. Special attention is given to the historical development of major economic institutions. *Not open to students who have taken Economics 121.*

214. A Contemporary Economic Issue A current economic topic which has important public policy implications is examined. The topic, to vary from time to time, will be announced prior

to registration. *Prerequisite: Economics 111 and/or 112 depending on the topic.*

222. Environmental Economics A study of human production and consumption activities as they affect the natural and human environmental systems and as they are affected by those systems. The economic behavioral patterns associated with the market economy are scrutinized in order to reveal the biases in the decision-making process which may contribute to the deterioration of the resource base and of the quality of life in general. External costs and benefits, technological impacts, limits to economic growth, and issues of income and wealth distribution will be examined. A range of potential policy measures, some consistent with our life style and some not, will be evaluated. *This course is also cross-listed as Environmental Studies 222. Prerequisite: Economics 111 or 121.*

223. Radical Political Economy An alternative analysis of capitalism from a critical radical perspective. Designed as an introduction to radical political economy through the study of Marx as well as more contemporary radical economists. Focuses on the radical analysis of such contemporary socioeconomic problems as corporate power, working class oppression, racism, sexism, poverty, economic stagnation, and imperialism. Socialism as an alternative to capitalism is briefly explored through the study of present day socialist experiences as well as contemporary radical visions of socialism in the United States. *NOTE: This course presupposes a basic familiarity with contemporary socioeconomic problems. Prerequisite: Economy and Society or permission of the instructor.*

248, The World Economy This course, designed for nonmajors, is less theoretical than Economics 348 and will focus on current trends, policies and institutions. Topics to be explored include: the theory of free trade; protectionism; the balance of payments and the international monetary order; the Common Market; trade policy and the Third World; imperialism and multinational corporations. *Prerequisite: Economics 112 or 121. This course does not count toward the major in Economics, but qualifies for the minor.*

268. Intermediate Macroeconomic Theory A study of national accounting with emphasis on consumption, investment, and government expenditure patterns. Analysis of theories of income determination and of growth at the aggregate level as well as an examination of production flows among industrial sectors. *Prerequisite: Economics 112 or 121.*

278. Intermediate Microeconomic Theory Theory of relative prices of commodities and productive services under perfect and imperfect competition. The role of prices in the allocation and distribution of resources and commodities. Economic behavior of individual economic units like consumers, firms, and resource owners. *Prerequisite: Economics 111 or 121.*

314. Special Topics See Economics 214 above. Special advanced topics. *Prerequisite: Economics 268 and/or 278 depending on topic.*

344. Public Finance Theoretical analysis of the interaction of the public and private sectors emphasizing problems of allocation and distribution. Topics will include economic rationales for government, public expenditure theory, redistribution of income, collective decision-making, and taxation. *Prerequisite: Economics 111 or 121. Recommended: 278.*

347. Money and Banking A study of the role of money and credit in the United States economy. This includes an examination of the functions of money, the commercial banking system, the Federal Reserve System, and other domestic financial institutions. Various theories of money will be studied. The monetary and financial policies and practices of the Federal Reserve System and the United States Government will be analyzed and appraised. *Prerequisite: Economics 112 or 121. Recommended: 268.*

348. International Economics An introduction to the determinants of international trade patterns, the causes and consequences of public policies to control trade, the operation of the international monetary system and its effect on national economies, rich and poor country relationships, theories of imperialism, and the

emerging role of the multinational corporation. Designed for economics majors. *Prerequisite: Economics 268 and 278.*

349. Economic Development An introduction to the causes of and proposed solutions to world poverty from an international political economy perspective to include the colonial legacy of the third world, underdevelopment as a regressive process, alternative development strategies and policies, social and political structures, and simple growth and planning models. Designed for economics majors and other students interested in international studies and Latin American Studies. *Offered in alternative years. Prerequisite: Economics 111 or 112 or Economics 121.*

350. Industrial Organization and Public Policy A study of the relationships between market structure, conduct and economic performance in U.S. industry. Emphasis will be on the manufacturing sector and specific industries will be examined. A brief introduction to antitrust and regulation will also be covered. *Prerequisite: Economics 278.*

353. The Economics of Labor A survey of labor markets in the United States, with particular emphasis on the causes and effects of discrimination, and on the impact of unions, minimum wages, and other policies and institutions on labor. *Prerequisite: Economics 111 or 121. Recommended: 278.*

371. Topics in Economic History Focus on North America and Western Europe since the Industrial Revolution, on economic growth in several dimensions, especially agricultural, industrial, organizational, technological, and urban. The United States receives greatest attention. *Prerequisite: Economics 111 and 112 or Economics 121.*

375. Econometrics The application of statistical techniques such as multiple regression to the modeling and forecasting of economic phenomena. Both macro- and microeconomic applications will be studied. *Prerequisite: Economics 268 and 278; Math 121, 222, or permission of the instructor.*

376. **Alternative Economic Systems** A study of the goals and means of economic systems which are fundamentally different from our own. The systems considered will be both theoretical models, such as those of perfectly competitive capitalism and market socialism, and actual cases, including those of the Soviet Union, China, and Yugoslavia. *Prerequisite: Economics 111 and/or 112.*

378. **Managerial Economics** Application of theoretical concepts to decision-making processes of public and private enterprises. Focus on decision models, forecasting, measurement of demand, costs, production, and pricing policies. *Prerequisite: Economics 278.*

473. **History of Economic Thought** A critical presentation of significant economic theories from the beginning to the present time, viewed as an expression of the individuality of the great thinkers and of their historical background. *Prerequisite: Economics 111 and 112 or Economics 121.*

475. **Mathematical Economics** Selected topic, to be announced prior to registration, in theoretical or applied economics, using mathematical or statistical techniques. *Prerequisite: Economics 268 and/or 278 plus Math 161 or permission of the instructor.*

495, 496. **Economics Seminar** A reading research, and conference course on selected economic topics. *Prerequisite: Economics 268 and 278, or permission of the instructor.*

Major: Economics 121 and eight other courses or Economics 111, 112 and seven other courses. The additional courses must include 268, 278, and either 495 or 496. Students with 121 may include two courses in business and financial analysis in the nine course major but must have two economics electives at the 300 level or above. Students with 111, 112 may include one course in business and financial analysis in the nine course major but must have two economic electives at the 300 level or above. In addition, Mathematics 161 and one course in statistics are required. A course in computer science is recommended but not required.

Minor: six courses, including 121, 268, 278, and three electives OR six courses, including 111, 112, either 268 or 278, and three electives. One course in business and financial analysis may be substituted for one elective in economics.

Note 1: Course scheduling—The student who expects to major in economics should begin the mathematics sequence early. It is recommended that 268 and 278 be elected during the sophomore year. Prospective majors, as well as those planning graduate study in economics or business, should consult the department early concerning other course options.

Note 2: Departmental honors—Any student with a 3.33 average in the major may undertake a two-course independent research project. Departmental honors will be awarded if the two courses are over and above the nine required courses, if a grade of A or A- is earned on the project, and if the departmental oral examination on the project is successfully completed.

Education

The Department of Education is responsible for education courses for the general student as well as for the certification program in secondary education. The Department believes that students are best prepared for teaching by a thorough grounding in the discipline in which they will teach. The Department builds upon the prospective teacher's knowledge of this subject matter in preparing him or her for the classroom experience.

Faculty

James A. Boytim, Assistant Professor of Psychology and Education. Ed.D., Indiana University at Bloomington. His special interests include counseling and consulting, personality psychology, industrial and organizational psychology, small group dynamics, and secondary teacher preparation and student teacher supervision. His current research is in the field of industrial and professional consultation and in applications of Albee's model for primary prevention of psychopathology.

The teacher education program consists of (1) basic coursework, and (2) the professional semester in teacher education. Certification programs include biology, chemistry, earth and space science, English, environmental education, French, German, Greek, Italian, Latin, mathematics, physics, social studies, and Spanish. Basic coursework consists of the following courses.

Psy. 111—Introduction to Psychology
Ed. 221—Social Foundations of Education
Psy. 231—Educational Psychology (Prerequisites: Ed. 221, Psy. 111).

These basic courses are prerequisites for filing application for admission to the professional semester. They are normally scheduled during the first two years of study. In the fall semester of the junior year, teacher education candidates make formal application to the director of teacher education for admission to the Professional Semester in Teacher Education, either for the fall or spring semester of the senior year. Applications should be returned to the director of teacher education.



The professional semester consists of block-scheduled, concentrated professional education courses, seminars, and clinical workshops, and full-time observation and supervised student teaching in a nearby, cooperating public school system. These account for four course credits and no other courses are to be taken. The semester includes:

First half of semester:

Ed. 433—Educational Principles, Curriculum and Special Methods in Subject Areas
Ed. 443—Educational Evaluation (one-half course)
Ed. 451—The Use of Instructional Media. (one-half course)

Second half of semester:

Ed. 461-462—Observation and Supervised Student Teaching

221. Social Foundations of Education Emphasis is on the role of the school in the social setting, the functions of schools in the social setting, the functions of schools in a changing society, community influences upon education, and the teacher's role in community and school. Several philosophical writings are examined as they relate to the historic development of the American secondary school program.

231. Educational Psychology See Psychology 231.

391. Topics in Education Analysis and discussion of selected topics in education. Examples include: Philosophies of Education, Group Processes in Educational Settings, and Education as Social Policy. *Prerequisites: Permission of instructor; open to juniors and seniors.*

433. Educational Principles, Curriculum, and Special Methods in Subject Areas Instruction in the planning, organizing, and conducting of instructional activities; in the developing of effective class management procedures; in the application of innovative pedagogical techniques; and in effectively using curricular materials and evaluative instruments. Considerable time is devoted to the specialized field in which certifica-

tion is sought. *Prerequisite: 221, 231, and admission to the professional semester.*

443. Educational Evaluation An introduction to evaluation principles and techniques focusing upon both teacher-constructed tests and standardized measurement instruments including testing terminology, types of instruments, selection procedures, and techniques for administering, scoring, tabulating, and interpreting test data. *Prerequisite: 221, 231, and admission to the professional semester: One-half course.*

451. The Use of Instructional Media A survey of all devices, techniques, and media available to today's educator. Attention is given to research findings and to projected developments. Students are required to prepare materials and gain experience with many media in clinical workshop sessions. *One-half course.*

461-462. Supervised Student Teaching and Observation Observation and supervised student teaching is done at nearby cooperating public secondary schools in the student's area of specialization on a full-time basis for eight weeks. This field experience is under the direction of college and public school advisory personnel. Seminars in teacher education are conducted by the director of teacher education, who is responsible for assignments. Travel and personal expenses incurred are the responsibility of the student. *Prerequisite: 221, 231, admission to the professional semester, and successful demonstration of necessary teaching competencies in 433, 443, and 451.*

Major: This department does not offer a major in education. The student preparing to teach completes a major in another department of the College.

English

Most students come to a liberal arts college in hopes of broadening their perspectives, and the English department offers them access to many of the richest and most varied "worlds" our language can describe. The skills taught—whether they involve ways of arriving at a clear and valid understanding of what Shakespeare said 400 years ago or ways of putting together a coherent argument today—are quite simply those needed to understand how language both reflects and shapes human experience.

At the core of the department's curriculum is a group of five courses, designed to ensure that students gain a sound background in literature to prepare them for more advanced offerings. Work in the core courses, all of which are required for English majors, includes reading works of major British and American authors, learning various critical approaches to literature, and understanding the cultural and historical backgrounds of each literary period. The development of sound writing skills is also one of our primary goals, both in literature courses and in the complete sequence of expository and creative writing courses which we offer. All majors participate in a tutorial or seminar, usually in their senior year, which gives them the chance to work closely with a faculty member in a subject of particular interest.

The majority of our offerings are, of course, open to students other than English majors, and the department encourages nonmajors to broaden their cultural and linguistic horizons by taking one or more of our classes. The curriculum tries to help students to develop analytical skills in writing and critical thought, skills which are useful for college work as well as in the world beyond the classroom. In the recent past, English majors have drawn on their experience here by entering careers in business, law, teaching, journalism, and government services.

Faculty:

Kenneth M. Rosen, Professor of English. Chairman. Ph.D., University of New Mexico. He specializes in contemporary American literature. His most recent research has centered on Ernest

Hemingway and American Indian literature. He is now completing a novel.

William A. Harms, Associate Professor of English. Ph.D., Indiana University. His primary field is 19th and 20th century English and European literature. Most recently he has turned to modern drama and the special teaching problems of relating theatre to literature. Additional interests include Irish literature and the comparison of literature to the other arts.

Dorothy W. Culp, Associate Professor of English. Ph.D., Columbia University. Her teaching interests include Renaissance, Restoration, and 18th century literature. Current research interests focus on the presentation of love in Renaissance lyric, narrative, and drama, as well as the staging of Renaissance plays.

Donald V. Bowie, Associate Professor of English. M.A., The Johns Hopkins University. Author of the memoir *Station Identification* and the novel *Cable Harbor*, Professor Bowie is currently at work on a second novel, *A Natural Women* which is under contract to Pocket Books/ Simon & Shuster. In his creative writing courses, he teaches poetry as well as fiction and non-fiction. He is interested in Broadway theater and in film production.

Sharon O'Brien, Associate Professor of English. Ph.D., Harvard University. Her teaching specialty is American literature of the 19th and 20th centuries. Research interests include women writers, popular culture, and the relationship between literature and society.

Thomas L. Reed, Jr., Associate Professor of English. Ph.D., University of Virginia. His field is medieval literature, with special emphasis on Chaucer and aesthetic theory. Other research interests include the romance as a literary genre. (On leave 1984-85)

David L. Kranz, Associate Professor of English. Ph.D., University of California at Berkeley. His scholarship focuses on Shakespeare and the Renaissance, in particular the influence of classical literature, philosophy, and religion on English drama and poetry. Other interests include literary theory and criticism, rhetoric and composition, and English pedagogy.

Robert P. Winston, Assistant Professor of English. Ph.D., University of Wisconsin-Madison. He specializes in American literature before 1914, especially the development of the early American novel. His current research focuses on the writings of James Kirke Paulding in the context of a growing American romance form and on the relationships between popular literature and American culture.

Ellen Rosenman, Assistant Professor of English, Ph.D., University of Virginia. Teaching interests include expository writing, Virginia Woolf, women's literature and 20th century literature; research interests currently focus on Virginia Woolf.

Robert D. Ness, Assistant Professor of English. Ph.D., University of North Carolina at Chapel Hill. He teaches Restoration and 18th Century English literature, linguistics, and African literature, with research interests in these fields.

Kathleen Moffat, Instructor in English. M.Phil., Yale University. The subject of her research is the modern novel. She is writing on the late novels of Conrad, Woolf, and Forster.

Carol P. Smith, Part-time Assistant Professor of English. Ph.D., University of Maryland. Teaching interests include expository writing; major research interests are the effective teaching of writing, the works of Eudora Welty and 20th century American Southern literature.

Courses:

100. English Composition Closely supervised practice in effective writing with emphasis on basic skills. Small group tutorials or individualized instruction. *Does not count toward an English major.*

120. Introduction to Literature Reading and analysis of poetry, drama, fiction, and non-fictional prose, selected from a range of chronological periods.

121. Topics in Literature Selected topics in English, American and non-fiction Western literatures. Topics may include 20th century poetry and fiction, the short story, images of women, the quest, the political novel, the African novel and Commonwealth literature.

Core Courses (201-205):

Designed to expose the student to a broad range of English and American Literature and literary criticism, these courses will each stress the development of sound reading and writing skills. Close attention will also be given to the precise formal and generic character of each work and its relationship to a particular historical and cultural milieu.

201. Medieval Literature The literature of Medieval England, including Beowulf, samples of the earliest English drama, and the works of the Gawain poet, Chaucer, and Langland.

202. Renaissance Literature The literature of Renaissance England, including the poetry of Sidney, Spenser, Shakespeare, Donne, and Jonson, and selected plays of Shakespeare and his contemporaries.

203. Restoration and 18th Century Literature English literature from the restoration of Charles II to the death of Johnson, including works by Milton, Dryden, Swift, Pope, and Johnson.

204. 19th Century Literature The literature of the Romantic and Victorian periods, stressing the work of Wordsworth, Tennyson, and Arnold; other writers studied include Austen, Dickens, George Eliot, and Hardy.

205. American Literature An introductory survey of a limited number of American literary figures, including Emerson, Hawthorne, Twain, James, Fitzgerald, and Faulkner, with emphasis on pre-20th-century literature.

211. Expository Writing A course in expository prose which focuses on the writing process itself, emphasizing the organization of ideas and development of style. Seminars, group tutorials, or individual instruction.

212. Writing: Special Topics A course in analytical thinking and writing which develops expository skills through the exploration of such topics as Popular Culture, the Short Story, Sport in American Life, and Journalism. May include research papers. Seminars and workshops.

213. History and Structure of the English Language The origin and growth of British and American English, along with a survey of grammatical notions and methodologies from the traditional to the transformational.

218. Creative Writing A workshop on the writing of fiction, poetry, criticism, essays, and/or drama.

291. Studies in the Literature of the Western World Readings, in English translation, of masterpieces from the ancient, medieval, renaissance, and modern periods of non-English European literature. Several versions of the course are possible: the traditional survey (e.g. Homer to Dante, Rabelais to Ibsen), the genre study (e.g. tragedy from Aeschylus to Racine, the European novel, the epic), or a theme course (e.g. The Classical and Christian in Western Literature, The Idea of the City, Love in the Western World). *The course may be taken for credit with the instructor's permission if readings are not repeated.*

294. Literature of the Non-Western World Readings in English translation from the literary classics of Islam and India and (in alternate years) China and Japan; emphasis on religious and cultural backgrounds and on comparison of the literary genres to their Western counterparts.

Course may be re-taken for credit to cover all the material. Prerequisite: one course in literature.

312. Advanced Expository Writing Recommended for students with demonstrated competence in writing skills, this course pays special attention to sophisticated critical analysis, development of ideas, and style. *Prerequisite: Permission of the instructor on the basis of a writing sample.*

319. Advanced Creative Writing Writing and discussion of fiction, poetry, criticism, and/or drama, with emphasis on editorial adaptation for

the literary marketplace. *Prerequisite: 218 and the permission of the instructor.*

322. Topics in English Literature Topics may include Irish Literature, The Romance, Literary Theory, Shakespeare on Film. *Prerequisite: any core course.*

323. Topics in American Literature Topics may include American Indian Novels, The Frontier and the West; Autobiography, and Women Writers. *Prerequisite: 205.*

328. Practical Literary Criticism A "workshop" course in which formal and stylistic characteristics of drama, fiction, and poetry are examined together with the dominant schools of literary criticism. The format requires close textual analysis of several works and teaches the student to generate his or her own evaluative standards. *Prerequisite: any core course.*

331. Advanced Studies in Medieval Literature Topics may include The Medieval Romance, The Literature of "Courtly Love", Medieval Drama, or an interdisciplinary subject such as "Images of Death in the Art and Literature of the Middle Ages." *Prerequisite: 201.*

336. Chaucer The poet and his century, with emphasis on *The Canterbury Tales*. *Prerequisite: 201.*

341. Advanced Studies in Renaissance Literature Topics may include The World of The Faerie Queene, The Image of Women in Romance Fiction, Marlowe and Spenser, Tragedy, 17th Century Poetry: The Age of Revolution, Donne and Jonson. *Prerequisite: 202.*

342. Renaissance English Drama Plays from the Tudor and Stuart periods with emphasis on Marlowe, Jonson, Webster, and Shakespeare. *Prerequisite: 202.*

346,347. Shakespeare A selection of plays in every period and genre of the canon—early, romantic, and dark comedies, English history plays, Roman plays, tragedies, and romances—and a sampling of critical approaches to the plays. Different selections in successive semesters. *Prerequisite: 202.*



351. Advanced Studies in Restoration and 18th Century Literature Topics may include English Satire and the Classical Tradition; Comedy; Pope and Swift; Johnson, Boswell, and the Art of Biography; 18th Century Literature: An Interdisciplinary Approach. *Prerequisite: 203.*

356. Milton Detailed study of the poetry and prose with emphasis on the social and historical background and on the development of Milton as a poet. *Prerequisite: 203.*

361. Advanced Studies in 19th Century Literature Topics may include Austen, Keats, Tennyson, Browning, Dickens, Hardy, Aestheticism in Selected 19th Century Writers, 19th Century Literature: An Interdisciplinary Approach. *Prerequisite: 204.*

363. The English Novel The Development of the novel as a genre, emphasizing major works

from the 18th and 19th centuries; close attention to novels by Richardson, Fielding, Austen, Dickens, George Eliot, Hardy, and others. *Prerequisite: 203 or 204.*

372. 20th Century English Fiction Close study of novels by Joyce, Woolf, Waugh, Powell, Pym, Amis, and others, in the context of different kinds of modern fiction. *Prerequisite: any core course.*

373. 20th Century English Poetry Close readings of modern poems, with special attention to the English tradition; principal poets include Hardy, Yeats, Owen, Eliot, Graves, Auden, Betjeman, Larkin. *Prerequisite: any core course.*

382. The American Renaissance, 1830-1888 Selected works by Emerson, Poe, Hawthorne, and Melville will be emphasized. *Prerequisite: 205.*

384. American Poetry The development of poetry in America from Anne Bradstreet to the present with emphasis on selected works by Whitman, Dickinson, Frost, Stevens, Williams, cummings, and Pound. *Prerequisite: 205.*

386. American Novel The development of the novel in America from Charles Brockden Brown to the present with emphasis on selected works by James, Twain, Melville, Fitzgerald, Hemingway, and Faulkner. *Prerequisite: 205.*

388. American Drama A study of American dramatic literature with emphasis on the works of O'Neill, Miller, Williams, Jones, and Albee. *Prerequisite: 205.*

396. Modern Drama I The formative period of 20th century drama, plays by Ibsen, Chekhov, Strindberg, Shaw, Synge, Pirandello, and others. *Prerequisite: any core course.*

397. Modern Drama II Drama from 1930 to the present; plays by Brecht, Anouilh, Ionesco, Eliot, Beckett, Pinter, Stoppard, and others. *Prerequisite: any core course.*

Tutorial and Seminar Courses (406-410):

These courses give the student an opportunity to demonstrate, under the close supervision of a professor, a mastery of the reading and skills expected of a major. Seminars are limited to 15 students and require regular class participation, leading to the completion of a major paper. In tutorials, two students study one (or two) major authors, and alternate in reading papers at a weekly session with the instructor.

406. Tutorial in English Literature *Prerequisite: Permission of the instructor; open to junior and senior majors who have completed the core courses in English literature.*

407. Seminar in English Literature *Prerequisite: Open to juniors and seniors who have completed the core courses in English literature.*

408. Tutorial in American Literature *Prerequisite: Permission of the instructor; open to junior and senior English and American Studies majors who have completed two core courses, one of them being 205, and a 300-level course in American literature.*

409. Seminar in American Literature *Prerequisite: Open to juniors and seniors who have completed two core courses, one of them being 205, and a 300-level course in American literature.*

410. Seminar in Creative Writing *Prerequisite: Permission of the instructor; open to juniors and seniors who have completed 218 and 319.*

Major: ten courses, including the five core courses; at least four must be above the 200 level, including one seminar or tutorial. When students declare a major, they and their faculty advisers will design a schedule for completing the core courses (usually by the middle of the junior year) while also pursuing their interests in appropriate upper-level courses. Transfer students and others who need a special schedule for completing these courses must have their program approved by the chairperson.

Minor: six courses, including five courses in literature: three core courses and at least two other literature courses above the 200 level.

Independent Research and Independent Study: Independent Research that may lead to Honors is open to juniors and seniors who have achieved a grade point average of 3.25 in English, and who wish to study a specific author, period, or theme of literature. Special study that may lead to Honors in creative writing is also available. Independent studies in both literature and writing are offered, and the department distributes a list of professors and their specialties to assist students in developing projects. Proposals are usually submitted during the semester before the study is undertaken.

Teacher Certification: Majors who wish to secure teacher certification must take the following courses, preferably before enrollment in the professional semester of teacher education.

- a. English 211 or 212
- b. English 213
- c. English 312

Environmental Studies

The Environmental Studies Program offers courses designed to give students a background in: (1) the natural processes working at the surface of the earth to provide a basis for evaluation and control of environmental quality, (2) the philosophical and historical basis of man's relationship to those processes, and (3) the economic and political basis for decision making in regard to environmental problems. All courses are interdisciplinary in nature, content, and approach and attempt to provide models for future alternatives. In addition to the three courses listed below, there are special courses directly related to environmental studies offered by various departments from time to time.

Students may create a self-developed major in environmental studies or they may earn a certificate with a coordinate option of study. For the majority of students the certification program offers the best combination of career opportunities and environmental interests. Conversations with representatives of industry and graduate schools indicate that they would prefer a firm background in a regular major which represents depth in some field, supplemented by courses relevant to environmental issues of interest to the individual student.

The Environmental Studies Certificate is an interdisciplinary venture involving students and faculty from throughout the College, recognizing that study of the environment involves all disciplines and professional fields. While the program attempts to serve a wide array of environmental interests, its primary focus is tailored to the individual student. The program combines study of the environment with a traditional disciplinary major and offers students three alternatives. The three courses listed below form the required core for the certificate. Six other courses, including one independent study or independent research which culminates in an interdisciplinary research paper, are required for the Thematic Concentration. Courses are selected from one of the three areas or divisions of

the major. Students majoring in the humanities field select appropriate courses from that area and their certificate will have a thematic concentration designed "Humanistic Perspectives on the Environment." Majors in the social sciences select a thematic concentration which is termed "Environment and Society", and those from the natural sciences acquire a concentration in "Environmental Science". An Environmental Study Advisory Group of faculty with interdisciplinary interests assists students in planning an individualized program of studies which combines a broad, comprehensive understanding of the environment and depth in a specific discipline or profession leading to a future career.

The program is viewed as being valuable to students planning for graduate school or environmental law, to become high school teachers, planning commissioners, environmental consultants, or to procure jobs in federal regulatory agencies, state or federal parks, and in private industry.

Contributing Faculty:

Professor Houston (economics)

Assistant Professor Feldman (philosophy)

Assistant Professor Wilderman (environmental science)

Courses:

111. Environment, Culture, and Values A study of the effects of scientific, religious, and philosophical values on man's attitudes toward his environment and how these attitudes may affect our way of life. By focusing on a particular current topic, and by subjecting the basis of our behavior in regard to that topic to careful criticism, alternative models of behavior are considered together with changes in lifestyle and consciousness that these may involve.

131, 132. Environmental Science An integrated, interdisciplinary study of natural environmental systems and man's impact on them. Basic concepts of ecology and energy will be examined and utilized to study world resources, human population dynamics, pollution, and pollution

control. Field study will be emphasized. Three hours classroom and three hours laboratory a week. (131, 132 will satisfy the one-year laboratory science distribution requirement. Normally, 25 spaces are available each year to freshmen.)

222. Environmental Economics A study of human production and consumption activities as they affect the natural and human environmental systems and as they are affected by those systems. The economic behavioral patterns associated with the market economy are scrutinized in order to reveal the biases in the decision-making processes which may contribute to the deterioration of the resource base and of the quality of life in general. External costs and benefits, technological impacts, limits to economic growth, and issues of income and wealth distribution will be examined. A range of potential policy measures, some consistent with our lifestyle and some not, will be evaluated. *Prerequisite: Economics 111 or 121.*

Financial and Business Analysis

One or more of the courses listed below may be of value to the student who seeks partial preparation for a career in business, law, or government service. These courses are designed to develop skills which complement those learned in a wide array of other courses offered by the College.

Courses in financial and business analysis are electives and do not constitute a special program of study at the College; they provide a means of enhancing specific skills but must be integrated into a more comprehensive program of study to be meaningful. Preprofessional preparation in business, law, and government service primarily requires a sharpening of abilities in written and oral communication, investigation of a wide range of values and beliefs, training in scientific methods of analysis and measurement, study of the logic of mathematics, statistics, and computer science, exploration of human institutions and the natural environment, and an understanding of and practice in various modes of creative, artistic expression. In other words, a liberal education.

Studies have consistently shown that, beyond the lowest professional levels, it is the liberal arts graduate, the broadly trained, sensitive, and creative person who is in command of sophisticated analytical and communicative abilities, who succeeds in business, government service, and other careers.

Students who have developed specific career objectives and who think that one or several business and financial analysis courses may be useful, then, should carefully plan a well balanced program of study in consultation with faculty advisers and preprofessional advisors for business, law, and government service.

Contributing Faculty:

Assistant Professor McClymont (economics)

Courses:

214. A Contemporary Issue A current topic which has significant implications in the public or private policy area. The topic, to vary from time to time, will be announced prior to registration. *This course does not count toward distribution requirements.*

229. Financial Accounting Study of the basic concepts of accounting, their significance and use. Theories and principles in recording, summarizing, reporting and analyzing financial data. Procedures and techniques relating to income determination, asset valuation, flow of funds and financial statement presentation. *This course does not count toward distribution requirements.*

230. Managerial Accounting Study of the concepts and application of accounting from the procedural and managerial approach. The accumulation of cost data for planning, controlling and decision making. Providing information needs of internal management with emphasis on cost behavior. *Prerequisite: 229. This course does not count toward distribution requirements.*

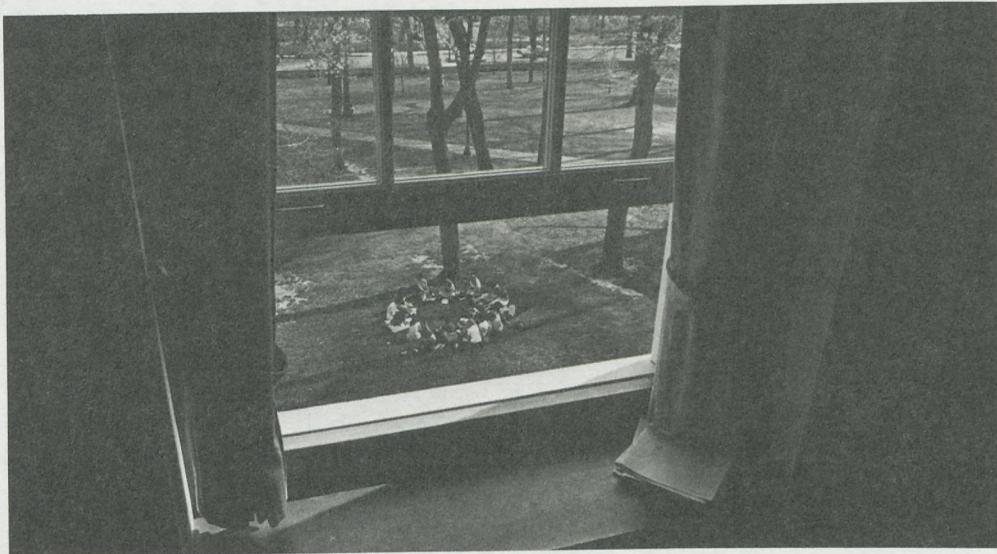
235. Managerial Finance An introduction to principles of financial management including concepts of risk, return, capital asset pricing model, working capital, capital budgeting, debt/equity financing, cost of capital, and dividend

policy. *This course does not count toward distribution requirements. Not recommended for freshmen.*

238. Investment Analysis and Portfolio Theory Focus on private and government securities markets. Technical and fundamental theories of investment analysis. Portfolio theory and policy for individuals and institutions. *Prerequisite: Economics 112; Financial and Business Analysis 235 recommended. This course does not count toward distribution requirements.*

361. Intermediate Financial Accounting An intensive study of general accounting principles and related matters pertaining to concepts and use of financial statements. Systematic and critical examination of the major items in financial statements with consideration as to alternative methods of recording and presenting accounting data. *Prerequisite: 229. This course does not count toward distribution requirements.*

362. Cost Determination and Analysis An intensive study of the principles, policies, and procedures for determination of unit costs of goods and/or services as applied to profit and nonprofit organizations. Advanced coverage of cost flows for product costing, budgeting, and profit contribution analysis. *Prerequisite: 230. This course does not count toward distribution requirements.*



Fine Arts

The Liberal Arts, as their name implies, are fields of study which nurture the mind's freedom. Freedom - to know, to choose, to act - is one of our culture's most cherished ideals, and it endures in a special way in the activity of the artist. That repressive societies attempt to control or suppress the artist's work is no accident; this work stands for the very possibility of freedom, in the mind's ability to envision and motivate the making of tangible alternatives to ordinary experience.

Contemporary culture takes for granted the liberating effect of verbal literacy, but all too often visual literacy has been neglected, and therefore misunderstood or ignored as an exercise of intellectual freedom. This area encompasses the visible environment we create for ourselves no less than the inner world of the imagination. At Dickinson we give full value to the sense of living tradition and the special problem-solving skills to be acquired from an understanding of the artist's work; thus, we seriously study art, historically as well as through actual making.

The art history program offers general overviews and in-depth analyses of art and its context, from its origins more than 27,000 years ago to its very latest manifestations. An extensive slide collection (90,000 transparencies) enables us to study this history by means of full and appropriate illustrations. In addition, the Trout Gallery provides a growing collection of actual works as well as a regular exhibition schedule to allow students a first-hand acquaintance and study of art. Students also benefit from internship opportunities at the gallery, and at museums in Carlisle, and the Philadelphia, Baltimore and Washington, D.C. areas.

The studio program, encompassing instruction in the principles of two-and three-dimensional art, puts the student in direct contact with artistic thinking, with its mixture of disciplined technical and formal decision-making, and open-ended, inventive experimentation. Areas of special emphasis are drawing and painting, ceramics and sculpture, graphics and photogra-

phy, each of which poses its own challenges and provides its own remarkable satisfactions.

Students graduating with a major in fine arts have become scholars in colleges and universities and teachers in the elementary and secondary schools. They also have become museum curators, professional photographers, ceramicists, medical illustrators, and art therapists. In each case these young professionals became broadly educated in, perceptually enriched and articulate about, the language of art.

Faculty:

Dennis Akin, Professor of Fine Arts. Chairman. M.F.A., University of Colorado. Teaches courses in painting, design, printmaking, and an art history survey from the early 15th century to the present. Professor Akin is an artist who works in acrylic and makes paintings concerned with the idea of "color in the air."

Sharon Hirsh, Associate Professor of Fine Arts. Ph.D., University of Pittsburgh. Her scholarship and teaching centers on the art of the 19th and 20th centuries. She is a major scholar of the work and symbolism of the Swiss artist Ferdinand Hodler. Her current research is on symbolist art as well as self-portraiture. (On leave 1984-85)

Barbara Diduk, Assistant Professor of Fine Arts. M.F.A., University of Minnesota. Prof. Diduk is an active artist who exhibits nationally; working primarily in stoneware, her emphasis is on the production of functional ceramics. She teaches courses in ceramics, three dimensional design, and photography.

Craig R. Zabel, Assistant Professor of Fine Arts. Ph.D., University of Illinois. His specialty is American architecture.

Mary Pardo, Instructor in Fine Arts. M.A., Bryn Mawr College. Her specialty is Renaissance Art Theory. She works on Italian treatises about painting.

David Robertson, Part-time Assistant Professor of Fine Arts. Ph.D., University of Pennsylvania. Professor Robertson teaches courses on art historical methods and the Northern Renaissance.

He also supervises internships in the Trout Gallery. Current research is on the 15th-century painter and sculptor, Michael Pacher.

Mary Stewart, Part-time Assistant Professor of Fine Arts, M.F.A., Indiana University. Her specialty is printmaking. She is also interested in the use of basic formal elements such as line, shape, and pattern as landscape imagery; connections between art and technology; and work with large-scale imagery.

Susan F. Nichols, Part-time Instructor in Fine Arts. M.A., University of Iowa. Her primary field of study is painting and drawing.

Contributing Faculty:

Associate Professor Krebs (comparative civilizations)

Assistant Professor Cavenagh (instructional media)

Courses:

101, 102. An Introduction to the History of Art
A survey of painting, sculpture, and architecture created by the world's leading civilizations. In 101, examples are chosen from prehistoric, primitive, ancient, and medieval European art. In 102, the arts of western Europe, beginning with the Renaissance, are considered. (*Either course satisfies Div. 1 Distribution Requirement.*)

121. Fundamentals of Painting and Two Dimensional Design A studio course for those wishing to begin the process of self-expression in visual terms, or for those wanting to find out more about the creative processes of artists. Carefully sequenced problems are solved emphasizing two-dimensional solutions in a variety of media.

123. Fundamentals of Sculpture and Three-Dimensional Design A studio course which explores design through the examination of three-dimensional form and sculpture. Various building methods and materials will be introduced as a means of illustrating concepts of form, space, composition, color and design.

125. Drawing The course will be devoted to working from the human form during which the students will be expected to develop a sense of two-dimensional line and three-dimensional illusionistic form through the use of such graphic media as pen and ink, pencil, charcoal, conte crayon, etc. *Prerequisite: 121 or 123.*

160. Special Topics in Studio Selected techniques and concepts in studio, taught at the introductory level. The content of each course will be altered periodically.

201. History and Art of the Film A study of the history of the film as an art form, with emphasis on developing fruitful critical standards for the judgment of films. (*This course satisfies the Div. 1 Distribution Requirement.*)

202. Ancient Art The art and architecture of ancient Egypt, Mesopotamia, Greece, and Rome are considered with major emphasis devoted to the art of Greece and Rome. *Prerequisite: 101 or 102.*

203. Medieval Art European art and architecture of the Middle Ages, from the decline of the Roman Empire to the 14th century. Particular emphasis is placed on early Christian, Romanesque, and Gothic art. *Prerequisite: 101.*

204. American Art The development of painting, sculpture, and architecture in America. Special consideration will be given to the problem of what constitutes an American style in the arts, as well as recent, specifically American, developments in 20th century art. *Prerequisite: 101 or 102, or American Studies majors.*

209. Studies in Oriental Art (in different semesters: Indian; Buddhist; Chinese; Japanese, other) An introduction to the artists and art forms originating in Asian civilizations. Particular emphasis is placed on the formative role of the aesthetic spirit and its intimate relation to the civilizational context. (*This course satisfies the Div. 1 Distribution Requirement.*)

221. Photography An entry level course in black and white photography. Film developing and the making of prints using conventional media, and an exploration of other media and processes



which may include high contrast, large format, hand-tinted works, introductory color and "alternative" processes. The student will be required to demonstrate attainment of skill through portfolios presented to the class.

223. Ceramics Ceramics processes and techniques utilized by working with highfire and lowfire clay and glazes. Emphasis is given to expressive possibilities of working with the potter's wheel and in shaping clay with the hands into pottery and sculptural forms.

225. Introduction to Artists' Media and Techniques Experimentation with various media and techniques used by visual artists, including drawing with silverpoint, gessoing and gilding panels, grinding natural pigments, painting with watercolor, egg tempera, encaustic, oil, and fresco. *Open to all Art History and Studio Art Majors. Art history majors should have prerequisite of 101 and 102; Studio art majors should have 121 or 123. This course does not satisfy the distribution requirement. Offered every other year.*

301. Italian Renaissance Art Italian painting, sculpture, and architecture of the 15th and 16th

centuries will be considered. The works of Ghiberti, Donatello, Brunelleschi, Masaccio, Leonardo, Piero della Francesca, Raphael, and Michelangelo will be reviewed in some detail. Theoretical and critical writings of the period will be discussed. *Prerequisite: 101 and 102 or permission of the instructor.*

302. Northern Renaissance Art A study of the art of northern Europe in the 15th and 16th centuries, with particular emphasis on Germany and Flanders. Special consideration is given to the work of Durer, Grunewald, Cranach, and Altdorfer and to that of Hubert and Jan van Eyck, Roger van der Weyden, Memling, Bosch, and Bruegel. *Prerequisite: 101 and 102 or permission of the instructor.*

303. Baroque Art European painting, sculpture, and architecture of the 17th century will be considered. Particular emphasis will be placed upon the works of Caravaggio, the Carracci, Bernini, Borromini, Rubens, Rembrandt, Vermeer, Velasquez, and Poussin. Critical and theoretical writings of the period will be discussed. *Prerequisite: 101 and 102 or permission of the instructor.*

313. 19th Century Art Problems of Neo-Classicism, Romanticism, and Realism. Major 19th century European figures and movements will be surveyed, including David, Goya, Friedrich, the Nazarenes, Constable, the PRB, Delacroix, Corot, Courbet, Manet, and the Impressionists. Critical and theoretical writings of the period will be discussed. *Prerequisite: 101 and 102 or permission of the instructor.*

314. 20th Century Art A survey of major artists and movements from 1880 to the present, including Post-Impressionism, Expressionism, Cubism, Futurism, de Stijl, Suprematism, Dada, Surrealism, Abstract Expressionism, Pop Art, and current trends. Critical and theoretical writings of the period will be discussed. *Prerequisite: 101 and 102 or permission of the instructor.*

321. Painting Various painting media will be explored including oils, watercolor, and acrylic. *Prerequisite: 121.*

323. Sculpture Various sculpture media will be explored including clay, plaster, wood, stone, and metals. An emphasis will be placed on carving, casting, and metal welding. *Prerequisite: 123.*

325. Printmaking Various print making media will be explored including woodcut, silkscreen, and etching. *Prerequisite: 121 or 123.*

360. Advanced Studio Selected advanced studio techniques and concepts. The content of each course will be altered periodically. *Prerequisite: 121, 123 or permission of the instructor.*

391, 392. Studies in Art History Studies in selected topics of the history of art and architecture. The content of each course will be altered periodically. *Prerequisite: 101 and 102 or permission of the instructor.*

404. Seminar: Topics in the History of Art Advanced investigation of a particular artist, work, movement, or problem in the history of art. *Prerequisite: permission of the instructor.*

407. Art Historical Methods Some considerations of the research tools of art historical analysis, including bibliographical methodology and a study of the use of sources, secondary courses,

and documents in art history. In addition, the major schools of art historical writing and theory since the Renaissance will be considered. *Prerequisite: 101 and 102, as well as other upper-level courses on art of the Renaissance to the present.*

Museum Studies and Internship: A two-semester academic program designed to introduce the student to the responsibilities and procedures of museum work. One course credit per semester. Offered by special arrangement with various area museums. Consult with the chairwoman of the fine arts department and the internship coordinator.

Major Option one, with emphasis in art history: seven courses, normally taken in the following chronological sequence: 101, 102, 202, 203, either 301 or 302, 313 and 314, plus two additional electives in art history, and one studio course (121, 123, or 225). Students contemplating graduate work in art history should acquire knowledge of two foreign languages, particularly German. Option two, with an emphasis on studio experience: studio courses 121 and 125, plus four elective studios which must include at least one course emphasizing 3-D work (123, 223, or 323) and one course representing a second semester of a particular studio area. Four courses in art history including 101, 102, and a selection of one course in the area of Renaissance and Baroque art and one course in the area of 19th or 20th century art. In addition, a portfolio must be submitted in the senior year for a departmental critique.

Honors and independent study courses may be applied to the major. Course selection, particularly major elective courses, should be carefully made after consultation with the major adviser.

Minor in Art History: 101 and 102 plus four additional courses in the department, subject to the minor adviser's approval, that suit the particular interests of the student.

French and Italian

Courses in French and Italian at Dickinson are designed to provide far more than language acquisition. The department believes that foreign language learning at the college level is not an end in or by itself. While we do provide language training through sources which are oriented toward an understanding and use of the written and spoken modern idiom, we also rely on that language background to cultivate in students an appreciation of French and Italian literature and civilization.

Studies in French provide two possible directions. Those who elect to minor will be prepared to apply their background in French language and culture to related topics in other fields, such as history, international relations, or political science. The graduate French major will be, ideally, a person familiar with the great moments and movements of creative literary expression in the French tradition, proficient in the tools of literary analysis necessary for a deeper understanding of self and world, and conversant with the structure of a society different from his or her own. A French major or minor at Dickinson is thus a person who sees the world through two sets of eyes: those of his or her native culture and those provided by balanced training in French language, literature, and civilization.

Students can follow an informally "structured" major in French, consonant with personal preferences and career plans, in which one chooses among core courses oriented toward language and/or pedagogy, literature or civilization. While the major is planned so that no student is too concentrated in one aspect of the discipline, it is possible to elect a grouping of courses within the major which provides a more detailed perspective on one or more aspects of French studies. In this way, the student can attain both breadth and depth in the major.

The department of French and Italian also coordinates an interdisciplinary minor in Italian studies. This program is designed as an attempt

to introduce students to different fields of expertise all related to specific aspects of Italian culture and civilization. The program includes work in the Italian language and literature as well as special courses offered by other departments. It should be of special interest to those planning to study in Italy, particularly with the Dickinson Program in Bologna. The requirements for the minor in Italian studies can be integrated easily into the student's main area of concentration in international studies as well. Although no major exists in Italian studies, students can elect to take a self-developed major in the field.

The department encourages study abroad. The Dickinson College Study Center in Toulouse, France offers a year abroad, or in special cases a fall or spring semester, so that students may deepen their knowledge of French language, literature, and civilization. Combining the quality of undergraduate instruction at Dickinson with the unique study opportunities of France's second-largest university, the program offers a core of Dickinson courses plus enrollment opportunities in the humanities, social sciences, and natural sciences at the University of Toulouse. In addition, the department offers a four-week immersion program in Toulouse, a six-week summer program in Nantes, and a four-week summer program in Italian language and civilization in Bologna, Italy.

The department also sponsors *La Maison française*. All students interested in French language and culture may request to live there after the freshman year. Each year a French university student lives in the house and acts as a resource person for programs and activities. These usually include lectures, films, slide shows, and discussions. In addition, the department sponsors a French club and weekly French and Italian tables in the Holland Union, where students interested in these languages meet over a meal with friends and faculty for informal discussion.

Because French and Italian studies at Dickinson are liberally oriented, providing skills and knowledge that can be applied to any field requiring critical thinking and an analytical mind, recent graduates who have majored or minored

in French or minored in Italian studies have gone on to further studies or employment in a wide variety of areas. These include, apart from graduate studies, teaching, law, publishing and editing, interpreting, personnel work, and a multitude of international business or banking concerns.

Faculty:

Michael B. Kline, Professor of French. Chairman. Ph.D., Brown University. His scholarship has focused on 19th and 20th century French literature, particularly Balzac and the mythopoiesis of culture in crisis, and the 20th century theatre with emphasis on the theatre of the absurd. His current research involves structuralism and contemporary literary criticism, and the semiotic analysis of French culture.

Nancy C. Mellerski, Assistant Professor of French. Ph.D., University of Chicago. She specializes in French literature of the 19th and 20th centuries, particularly the fantastic in 19th-century literature, the evolution of poetic structure and content in both centuries, and the modern novel and theory of the novel. Her most recent research is in the field of comparative detective fiction.

Sylvie G. Davidson, Assistant Professor of Romance Languages. Doctorat de Troisième Cycle, Université de Montpellier. Her scholarship has concentrated on French and Italian literature, fine arts, and music of the Renaissance and 17th century. Her current research examines French and Italian festivals of the Renaissance and their ideological meaning as well as news film of the early 20th century as rhetorical devices for political purposes.

Ruth Ohayon, Assistant Professor of French. Ph.D., Columbia University. Women's studies form the center of her scholarship, with particular emphasis on the representation of femininity in 18th-century French fiction. Her current research examines the ways that masculine imagination portrays women in literature. Other interests include 19th-century Symbolist poets and turn of the century decadent literature in Europe.

Winifred Woodhull, Assistant Professor of French. Ph.D., University of Wisconsin. Her interests are in 20th-century literature and culture, women's studies, and the criticism of mass culture. Currently she is studying the shifting relationship between the family and the state in 19th-century France and the role of women as pivotal figures in this transformation. (Director of the Dickinson Program in Toulouse 1984-85)

Rebecca R. Kline, Instructor in French. M.A., New York University. Her research interests are divided between two areas, oral proficiency testing and the relationship between the acquisition of first and subsequent languages.

John S. Henderson, Part-time Associate Professor of French. Ph.D., Brown University. His research centers on 18th century French literature, particularly Voltaire, the evolution of the theatre, and the history of ideas prior to the French Revolution. Secondary interests are in the French Renaissance and Rabelais. (On leave 1984-85)

Marjorie A. Fitzpatrick, Part-time Associate Professor of French. Ph.D., University of Toronto. French Canadian civilization, particularly history and politics, is her primary research area, followed closely by Québécois literature, especially the novel of the 19th and 20th centuries. Other scholarly interests are in 17th-century French literature, especially the theatre and moralists.

Elizabeth J. Billings, Part-time Assistant Professor of French. M.A., Middlebury College. Her scholarly interests include 18th-century French literature, French civilization, and French music. Her current research is in 18th and 19th century European opera.

Contributing Faculty:

Grace L. Jarvis, in Italian, (Spanish)

French

101-104. **Elementary French** Complete first-year course. Intensive study of the fundamentals of French grammar, with special attention given to pronunciation and oral expression. Cultural readings in the context of language acquisition. *Please refer to Graduation Requirements (Languages).*

115. **Intermediate Readings in French** The course develops reading and translation skills exclusively, by which means the language may become a useful research tool. Development of recognition, grammar, and vocabulary. Students will read, translate and discuss French texts from a variety of disciplines. Not suggested for French majors or minors. *Prerequisite: 104 or the equivalent. Either French 115 or 116 may be taken for credit, but not both.*

116. **Intermediate French** Intensive second-year study of French, with attention to grammar review, conversation, reading in a cultural context and some writing. *Prerequisite: 104 or the equivalent. Either French 115 or 116 may be taken for credit, but not both.*

230. **Conversation and Composition** A course in which students prepare lessons from the assigned textbook, which includes lexical expansion exercises, grammar review, phonetics practice, reading comprehension, and preparation of questions for discussion. Students also write at least five compositions; keep a daily journal which is collected weekly and corrected by the instructor; and take weekly written and oral examinations. Students may not receive credit for both 230 and 232. *Offered in Summer School only and in the Dickinson in France Program only. Prerequisite: 116 or the equivalent.*

231. **French Composition** A writing-intensive course directed towards improvement of stylistic skills. Some review of grammar insofar as it is a tool to achieve course goals. Writing assignments to include compositions, journals, prose style analyses, pastiches, and translations. *Prerequisite: 116 or the equivalent.*

232. **French Conversation** Emphasis on use of the spoken language within the context of daily French civilization. Intensive participation intended to encourage increasing freedom of oral expression, particularly as applied to those areas of intercultural communication of value to Americans who will be living or working in France. *Prerequisite: 116 or the equivalent.*

233. **Introduction to French Literature** Provides the student with the tools necessary for an analytical approach to the study of French literature, through the examination of selected works. Emphasis on *explication de textes*, various genres and methods of criticism. *Prerequisite: 231 or the equivalent, or permission of the instructor. Required of French majors.*

234. **Masterpieces of French Literature** A close thematic study of a variety of works representative of their periods. *Prerequisite: 233 or the equivalent or permission of the instructor. Required of French majors.*

243. **Introduction to French Civilization** Intended for students who have not yet studied in France. Major social, political, economic and other influences which have shaped the evolution of French civilization. *Prerequisite: 231 or the equivalent.*

346. **La Francophonie** Introduction to French-speaking civilizations outside France, and in-depth study of French Canada. Historical, political, and cultural problems of minority Francophone cultures. *Offered every other year. Prerequisite: 243 or at least a semester's residence in a French-speaking country.*

352. **The Theatre of the Sublime** The search for perfection in Classical France, Molière, Corneille, Racine, and brief extracts from some of the major moralistes. Offered on occasion as a bilingual course in French and English. *Offered every other year. Prerequisite: 234 or the equivalent or permission of the instructor.*

354. Reason and Revolution The Enlightenment: a century of intellectual ferment which challenged the values of the establishment and swept them away in a revolution. Montesquieu, Voltaire, Diderot, Rousseau. Offered on occasion as a bilingual course in French and English. *Offered every other year. Prerequisite: 234 or the equivalent.*

357. Romantics, Realists, and Rebels 19th-century French novel and poetry. An investigation of the major literary movements and authors of the century, to include the theory and practice of Romanticism and Realism in French letters; reaction to society by authors in revolt against bourgeois standards, and in pursuit of new modes of literary expression. *Offered every other year. Prerequisite: 234 or the equivalent.*

358. French Novel in the 20th Century Self-scrutiny in the novel. A study of the theory and the evolution of the modern French novel and a critical reading of selected works from the writings of novelists from Proust to the *nouveaux romanciers*. Development of the novel as a form in this century, aesthetic and philosophical concerns, and consideration of the novel as a self-conscious genre. *Offered every other year. Prerequisite: 234 or the equivalent.*

361. French Literature in the Renaissance Major works from prose, poetry, and theatre,

with particular emphasis on Rabelais and the development of humanism, the theory and practice of the *Pléiade*, and Montaigne. *Offered every other year. Prerequisite: 234 or the equivalent.*

362. Seminar in French Literature A thorough investigation of a major figure or important literary trend (chosen at the discretion of the instructor and in consultation with the majors) in French literature with emphasis on seminar reports and discussion. Recent themes have been: Evil, Seduction, The Fantastic, Surrealism. *Offered every other year. Prerequisite: Major in French.*

364. Topics in French Literature In-depth analysis and discussion of selected areas and problems not normally covered in other advanced offerings. Past topics have included: Women in French Literature, Theatre of the Absurd, French-Canadian Novel. *Prerequisite: 234, 255, 256 or the equivalent.*

365. Topics in French Civilization Investigation of a broad theme or selected area of French civilization through pertinent readings, media forms and research in both literary and non-literary materials. Past topics have included: French Political Culture, and Permanence and Change in French Society. *Prerequisite: 243 or the equivalent.*



The following courses are offered in Toulouse, the prerequisite for which is 233.

203. Phonetics Practical work in class and language laboratory in the articulation of French sounds and intonation patterns, to include use of the international phonetic alphabet and some theory of the production of French phonemes. *One-half course credit. Offered only at the Dickinson Study Center in Toulouse.*

204. Topics in Applied French Study of the French language in specialized contexts such as business French, translation/interpretation, or technical uses of the language. Topics to be chosen by the Director of the Dickinson Study Center and offered only in Toulouse. *One-half course credit.*

255,256. French Literature and Society A historically differentiated interpretation of French culture through examination of French literature from the Middle Ages to the present in conjunction with study of political, economic and social structures of each period. Intellectual and artistic currents that inform and are informed by these structures. Introduction of new critical perspectives such as psychoanalytical and structuralist literary theory. *Offered only at the Dickinson Study Center in Toulouse.*

290. Social Context of French Language The culturally determined nature of language studied in its social context. Theory and practice of the conventions of discourse, verbal signs, the norms of appropriate speech behavior and other linguistic phenomena within the practice of the language. Texts, language laboratory, video presentations and field observations will be employed to improve oral and written style as well as to examine the social nature of language. *Offered only at the Dickinson Study Center in Toulouse.*

318. Seminar in Intercultural Communication Contemporary French society examined through concentrated theoretical reading and discussion and directed experimental observations, so as to provide ideas, insights and methods by which to analyze and understand the principal cultural concepts which motivate Americans and the French. Seminar discussion

and reports, field projects. *Offered only at the Dickinson Study Center in Toulouse.*

Major: Nine courses beyond the 100 level, to include 233 and two courses from the following group: 234, 243, 255, 256; plus one 300 level course on the Dickinson campus.

Minor: Five courses beyond the 100 level, to include 233 and two courses from the following group: 234, 243, 255, 256.

Italian

101-104. Elementary Italian An intensive study of the fundamentals of Italian grammar, with special attention given to pronunciation and oral expression. Composition and literary and cultural readings. *Please refer to Graduation Requirements (Languages).*

116. Intermediate Italian Review of Italian syntax. Introduction to conversation and composition through selected cultural and literary readings. *Prerequisite: 104 or the equivalent.*

231. Italian Conversation and Composition Practical use of Italian in oral and written communication. Review of grammar deficiencies where needed to achieve correct and more natural expression. Varied readings and classroom exercises are utilized to achieve the goals of the course. *Prerequisite: 116 or the equivalent.*

250. Studies in Italian Literature Reading and discussion of representative works of Italian literature from the origins to the present. *Prerequisite: 116 or the equivalent.*

290. Topics in Italian Studies Study of significant cultural, literary, historical, and linguistic topics in Italian civilization and culture. Specialists from other disciplines will, from time to time, contribute by lecture and discussion to a deeper understanding of certain specific subjects of study, e.g. Renaissance Art, Italian political parties, etc. *Prerequisite: 116 or the equivalent.*

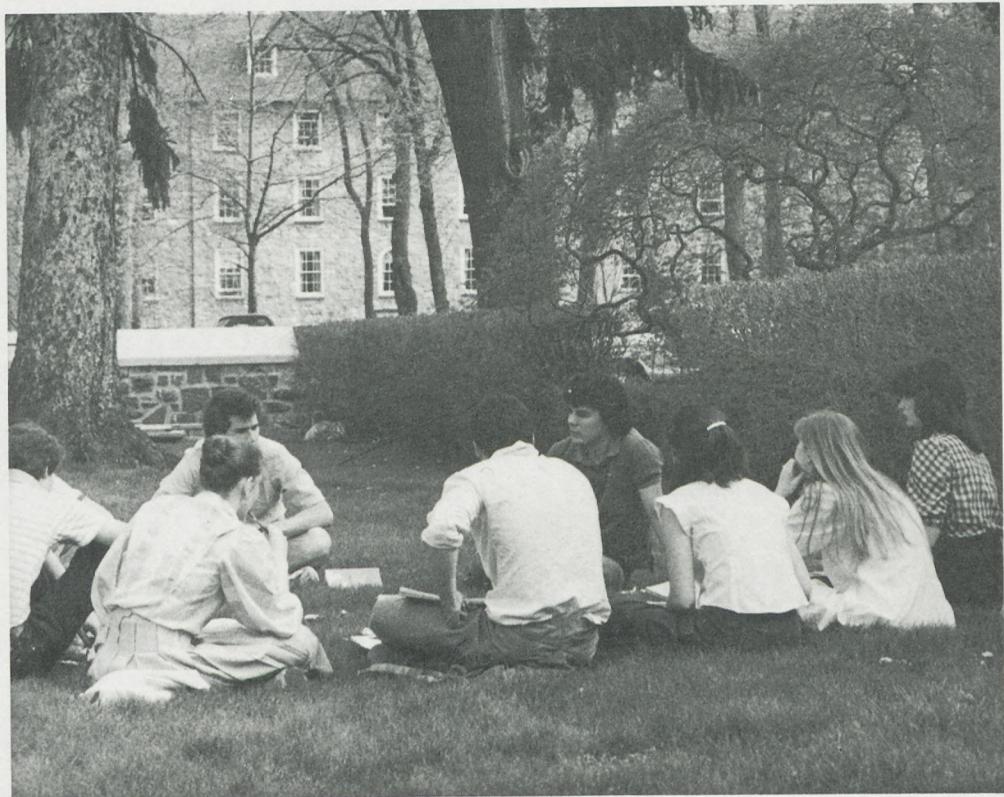
Note: A major and minor are not offered in Italian. Students should refer to the interdisciplinary minor in Italian Studies. The possibility exists for a self-developed major in Italian Studies.

Freshman Seminars

In the fall of 1981, Dickinson instituted a required program of freshman seminars. This program was evaluated by the faculty in February of 1983 and was approved to be continued because it has proved an important step in introducing entering freshman to the requirements for college level study. The list of topics from which freshmen may select their freshman seminar study is as varied as the special academic pursuits of the faculty who teach the seminars. Drawn from all departments across the college, these faculty use topics which range from "Human Destiny, An Environmental Perspective" to "King Arthur and the Western Imagination," to encourage students in discussion, reading strategies, research skills and college level writing.

Another important aspect of the program is the discussions which seminars generate about the history, nature and purpose of liberal studies. Because many of the faculty in the program also serve as academic advisers to their students, they often place this somewhat theoretical discussion in the context of concrete course selections the students will be making in their college years.

All Dickinson freshman arrive on campus for orientation knowing what freshman seminar they will join. The seminars begin in the orientation period, so that students are introduced to the academic life of the college at the same time that they learn to find their way into a new social environment. Because the work of the seminar is well underway when the semester begins, the seminars end shortly before the other course work of the fall semester, allowing freshman to enter their first examination period with one of their course completed.



Geology

The geology department provides for the liberal arts student a background in the study of the earth, the oceans, and the history of life through several course offerings. For those who wish to pursue geology as an intellectual challenge or as a profession, it also provides an undergraduate program that offers lecture, laboratory work, field study, and the elements necessary to prepare for graduate study or entry into the profession at a beginning level.

The department views its program for majors as a flexible one that allows students to develop a plan of study around a set of required "core" courses according to their interests. Some graduates in recent years have moved into positions in the mineral or petroleum industry, consulting firms, secondary education, or state and federal geological or environmental agencies. Others have gone on to graduate or professional education in geology, geochemistry, geophysics, oceanography, law, and medicine.

Collectively, the members of the geology department faculty have a broad range of earth science training and interest. Each is fully dedicated to teaching science in the liberal arts atmosphere. The students and faculty have as resources most of the equipment and materials needed for an undergraduate education in geology. Our library receives most American professional journals and a selection of journals from other countries. The laboratories are well equipped for the study of earth materials. The equipment includes thin-sectioning equipment, microscopes, an x-ray diffraction unit, micro-computers, computer terminals, and a wind tunnel, for example. The department has access to vehicles for use by students and faculty in field work.

The location of Dickinson College is unusually favorable for the study of many geologic topics, and regular field trips are a part of nearly every course the department offers. Field study is supported by equipment for sampling shallow marine environments, and for geophysical and geochemical work. Field trips away from central Pennsylvania take place every year, either as part

of a formal course during the academic year, as a summer program, or during a vacation period. In recent years these trips have included one that traced the path of Lewis and Clark (with a member of the department of history) to the West Coast (summer school), one to the United Kingdom (summer school), one to the Florida Key coral reefs (spring vacation), one to New England (early summer), and several to study beach processes at Assateague National Seashore and on the Outer Banks of North Carolina.

Faculty:

William W. Vernon, Professor of Geology. Chairman. Ph.D., Lehigh University. His specialties are in mineralogy, petrology, optical mineralogy, and archaeology. His major research activities and field experience have focused on the archaeology of Early Man in North America, particularly in the Eastern United States. His current research interests are centered on the evolution of prehistoric technology, especially the development of ceramic and metal industries.

Henry W.A. Hanson, Associate Professor of Geology. Ph.D., The Pennsylvania State University. His specialties are sedimentology, stratigraphy, and paleontology. His current research is in the dynamics of tidal-inlet systems.

Noel Potter, Jr., Associate Professor of Geology. Ph.D., University of Minnesota. His specialties are geomorphology and structural geology. His current research is mainly concerned with the origin of landforms, particularly those of cold regions. His current projects include work on rock glaciers in Antarctica and the erosional history of the Great Valley near Carlisle.

Jeffrey W. Niemitz, Associate Professor of Geology. Ph.D., University of Southern California. His specialties are marine geology, geochemistry, and economic geology. His current research interests include sea floor hydrothermal systems and ore genesis in the Gulf of California, Mexico, and laminated marine sediments applied to paleoceanographic and paleoclimatic studies. (On leave 1984-85)

Candie Wilderman, Assistant Professor of Environmental Science. Ph.D., Johns Hopkins University. Her specialties are in environmental science, water quality, and paleobiology. Current research is on the use of diatoms as indicators of past and present environmental conditions in the Chesapeake Bay.

James R. Ebert, Assistant Professor of Geology. Ph.D., SUNY-Binghamton. His specialization is in sedimentology. Additionally, he is interested in environmental geology.

Courses:

131, 132. General Geology Geological principles and external processes, including rock weathering and soils, river action and valley development, effects of glaciers, oceans, and volcanoes. Internal processes and their effects are examined, along with earth movement in mountain building, faulting and folding. Emphasis also will be placed on the physical and biological history of the earth and the application of the earth sciences to the solution of contemporary environmental problems. Three hours classroom and three hours laboratory each week.

201. Geomorphology The description and interpretation of the relief features of the earth's continents and ocean basins with a comprehensive study of the basic processes which shape them. Three hours classroom and three hours laboratory a week. *Offered every other year. Prerequisite: 131.*

203. Economic Geology Covers the mineral fuels, coal, oil, and gas, the major ore deposits, and the building materials including their geographic distribution, geologic occurrence, origin, and uses. Discussions on economics of mineral resources, exploitation of resources, and evaluation of potential resources. *Offered every other year. Prerequisite: 131.*

205. Mineralogy A course in descriptive mineralogy in which the various mineral groups are studied. Includes crystallography, general physical properties, and chemical and systematic mineralogy. Two hours classroom and three hours laboratory a week. *Prerequisite: 131 and*

Chemistry 131, 132 or concurrent registration therein.

206. Petrology A systematic study of the modes of occurrence, origin, and classification of rock types. Laboratory studies will be focused on the megascopic identification of the common rocks. Two hours classroom and three hours laboratory a week. *Prerequisite: 205.*

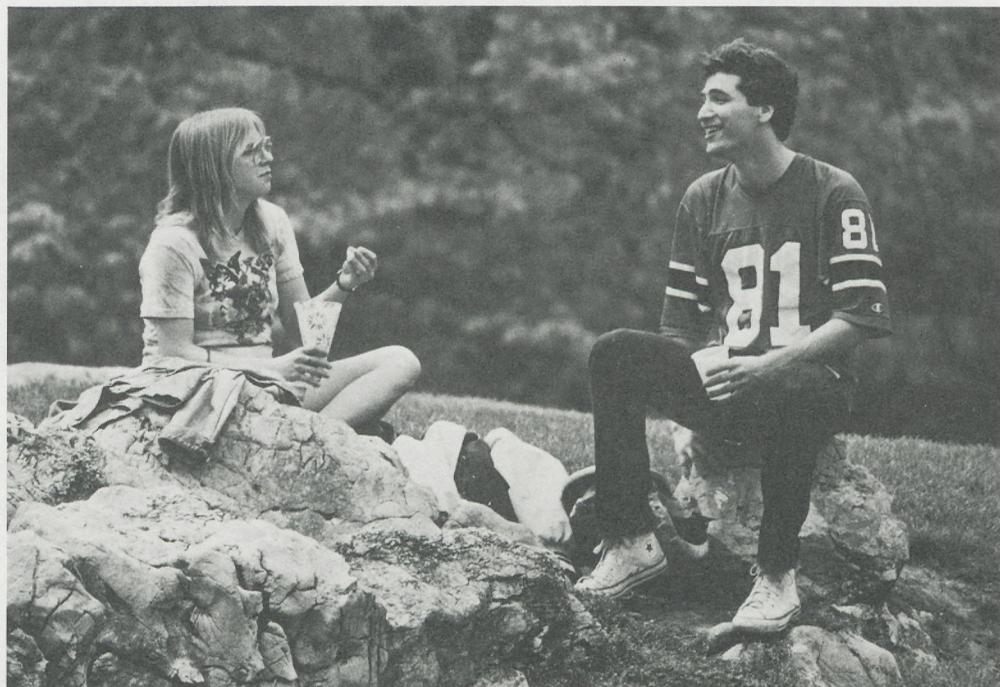
207. Invertebrate Paleontology A systematic study of the invertebrate fossil groups, their evolution, and their relationships to living animals. Three hours classroom and three hours laboratory a week. *Offered every other year. Prerequisite: 131, 132 or Biology 111, 112.*

209. Sedimentology A systematic study of source materials, transport, depositional environments, lithification and diagnosis of sediments. Three hours classroom and three hours laboratory a week. *Prerequisite: 131, Chemistry 131 or permission of the instructor.*

210. Stratigraphy Principles of organization and interpretation of the stratigraphic record. Emphasis on the stratigraphy of the Appalachians and selected European areas. Three hours classroom and three hours laboratory a week. Three Saturday field trips. *Offered every other year. Prerequisite: 131, 132, 205, 209.*

221. Oceanography An interdisciplinary introduction to the marine environment, including the chemistry of seawater, the physics of currents, water masses and waves, the geology of ocean basins, marine sediments and coastal features, and the biology of marine ecosystems. Topics include the theory of plate tectonics as an explanation for ocean basins, mid-ocean ridges, trenches, and island arcs. The interaction of man as exploiter and polluter in the marine environment is also considered. *Prerequisite: one year of a laboratory science.*

301. Field Geology A course in some of the basic geological field techniques, with the preparation of topographic and geologic maps and reports from data obtained by the student in the field. Three hours classroom and three hours laboratory a week. *Prerequisite: 131, 132.*



302. Structural Geology Tectonics, properties, relationships, and positions of the component rock masses of the earth. Three hours classroom and three hours laboratory a week. *Prerequisite: 301.*

303. Geochemistry Introduction to the origin of the elements and to geochemical cycles in the earth's atmosphere, hydrosphere, and lithosphere. Includes radioactive dating methods and stable isotope geology. *Offered every other year.* *Prerequisite: Chemistry 131, 132, Geology 131, 132. May be counted toward a chemistry major.*

311. Special Topics In-depth studies in special geological topics to be offered on the basis of need and demand. Recent topics have included Land Use Planning and Quaternary Geology. *Prerequisite: Permission of the instructor. One half or one course.*

315. Historical Geology The history of the earth, its changing features, and the development of its animal and plant inhabitants. Two hours classroom a week. *Offered every other year. Prerequisite: 209 and 302. One-half course.*

318. Optical Mineralogy Crystal optics and use of the polarizing microscope for the examination of minerals by the immersion method and rocks in thin section. Two hours of classroom and three hours laboratory a week. *Offered every other year. Prerequisite: 206 or concurrent registration therein.*

324. Seminar A reading, research, and conference course on topics in geology and related interdisciplinary fields. *Prerequisite: Permission of the instructor. One-half course.*

Major: nine courses including 131, 132, 205, 206, 209, 301, and 302. In addition, Chemistry 131, 132 is required.

Minor: six courses including 131, 132.

Note: The department strongly urges students who plan to continue in graduate school to complete Mathematics 161, 162 and Physics 111, 112 or 131, 132. Under appropriate circumstances Physics 202 might also be appropriate. Students in virtually all graduate programs are expected to have a firm foundation in chemistry, calculus, and physics.

German and Russian

The German and Russian programs offer students intensive language training on the elementary, intermediate, and advanced level and a variety of courses in literature and civilization. While the study of German and Russian culture is primarily designed to develop the student's understanding of the distinct ways in which the Russian and German people think, feel, and live their lives, it has other benefits as well. Learning to adapt oneself to unfamiliar speech and thought patterns and to look at the world from the vantage point of other nations is a liberating experience.

The three-semester sequence of basic language courses is intended for students with limited or no prior knowledge of German or Russian. The practical goal is to provide students with an essential tool for further study in Russian or German, with a useful research tool in any other field of their choice, and to open up the possibility of travel and study abroad. Upper level courses (200 and above), while open to all interested and qualified students, can lead to a major in Russian or German. The programs are designed in a way that allows students to become thoroughly familiar with individual writers and thinkers. Authors such as Goethe and Tolstoy, Kafka and Dostoevsky are models of humane intellect whose commitments live on in their writings. The German and Russian cultures embody the heights of human achievement as well as human failure. To study German or Russian language, literature, and civilization is to get to know one's own possibilities.

Students who have completed the 116 level of German or its equivalent have the opportunity to apply to The Bremen Practicum (German 220), a four-week intensive course in contemporary German language and culture offered by Dickinson at the University of Bremen, West Germany. The department also encourages advanced German students to study abroad during their junior year, either at the Dickinson College center in Bremen or in quality programs in

other cities in Germany, Austria, and Switzerland.

German and Russian studies blend with extracurricular life at Dickinson in the language clubs, German and Russian Houses, and language tables, in films, excursions, and other activities. They mesh too with other programs. German and Russian majors have had complementary majors in many other fields. Students have gone on to do graduate work in German and Russian, and also in such fields as religion and sociology. They have become business executives, teachers, physicians, and lawyers.

Faculty:

Dieter J. Rollfinke, Associate Professor of German. Ph.D., Johns Hopkins University. His teaching interests focus on romanticism and German literature of the 19th and 20th centuries, particularly drama. His current research is on the German novelist Heinrich Böll.

Helen Segall, Associate Professor of Russian. Chairwoman. Ph.D., Bryn Mawr College. Her teaching interests are Russian literature of the 19th and 20th centuries, Russian theater and drama, and Russian culture and civilization. Her scholarly interests focus on literature of the 20th century, especially V. Mayakovsky and the Russian avant garde.

Beverley D. Eddy, Associate Professor of German. Ph.D., Indiana University. Her scholarship has focused on German and Scandinavian prose literature of the 19th and 20th-centuries as well as on German and Scandinavian folklore. Other teaching interests include medieval studies and feminist criticism.

Wolfgang Müller, Assistant Professor of German. Ph.D., University of Wisconsin-Madison. His teaching interests are German literature after 1750, drama and film theory, literary criticism, and East German literature.

Alexei P. Tsvetkov, Assistant Professor of Russian. Ph.D., University of Michigan. He is especially interested in 20th century Russian literature, stylistics and poetics.

Olga Samilenko Tsvetkov, Assistant Professor of Russian. Ph.D., University of Michigan. She is interested in Russian literature of the 18th and 19th centuries, particularly the short story and the novel. Her Ph.D. dissertation will be an analysis of the Russian society tale of the 1830s.

Marianna Bogojavlensky, Part-time Professor Emerita of German and Russian. Ph.D., University of Pennsylvania. Her special teaching interests concern methods of teaching foreign languages and Russian classical literature. Her main research interest is religious thought in Russian and Soviet literature.

German

101-104. Elementary German An intensive study of the fundamentals of German Grammar with an eye to developing reading, writing, speaking, and understanding skills. Classes are small, meet five days a week, and move quickly. Beginning students are reading stories and writing short essays within a few weeks.

116. Intermediate German Introduction to conversation and composition using the skills acquired in 101 and 104 or in similar courses. Special attention is paid to grammar problems. Readings include contemporary essays and/or fiction. Classes are small and intensive, meeting five days a week. *Prerequisite: 104 or the equivalent.*

215, 216. Topics in Germanic Studies An examination of some topic related to German culture, with format and content to be determined each semester. Recent topics include: The Grotesque in German Art and Literature, KULTURGESCHICHTE, The German Radio Play, Women in Scandinavian Literature. *Prerequisite: instructor's permission.*

220. The Bremen Practicum A four-week course in contemporary German language and culture offered at the University of Bremen, West Germany. Students will speak only German during this four-week period, and participate in intensive language classes, special lectures and field trips arranged with by Dickinson

with German university instructors. *Offered summer 1984. Prerequisite: German 116 or equivalent and permission of the department.*

231. German Conversation and Composition Advanced practice in reading, writing, speaking, and understanding German using current political and social events, stories, essays, and other materials as the topics for discussions and writing assignments. *Prerequisite: 116 or the equivalent.*

236. Introduction to German Literature An introduction to selected works of German literature and to the tools, methods, and purposes of studying literature. *Prerequisite: German 116 or the equivalent.*

301. German Literature from its Beginnings to the Reformation A study of writers from the days of Charlemagne through the Middle Ages to the age of Martin Luther (from about 800 to the mid-1500s). Special emphasis is on epics like the Nibelungenlied, on the songs of the wandering troubadours, and on writers like Erasmus and Martin Luther. *Offered in the fall semester every other year. Prerequisite: 236 or instructor's permission.*

304. German Literature of the Baroque, Rationalism and Sturm Und Drang A study of writers from the Thirty Years War through the Age of Reason to the beginnings of the modern age of German literature (the early 1600s to the end of the 1800s). Some, like Gryphius and Grimmelshausen, are not well known. Others, like Lessing, Goethe, and Schiller, have left a lasting mark on world literature. *Offered every other year. Prerequisite: 236 or instructor's permission.*

305. The Age of German Classicism A detailed study of the writings of Goethe and Schiller, Germany's greatest writers, and the era in which they lived and worked (the mid-1700s to 1832, the year Goethe died). *Offered every other year. Prerequisite: 236 or instructor's permission.*

307. The Age of Romanticism A study of the generation of writers after Goethe and Schiller (the 1790s to the 1830s), people like E.T.A. Hoffmann, Brentano, and the brothers Grimm,

whose stories, poems, and fairy tales have had a powerful effect on the likes of Poe and Hesse. *Offered every other year. Prerequisite: 236 or instructor's permission.*

308. German Prose and Poetry from Realism through Expressionism A study of Grillparzer, Heine, Stifter, Storm, Fontane, Morike, and Hauptmann (from the mid-1800s to the 1920s), writers only gradually being rediscovered as some of the greatest masters of verse writing and story telling. *Offered in the spring semester every other year. Prerequisite: 236 or instructor's permission.*

309. German Drama of the 19th Century A study of the main dramatists and dramatic movements from the French Revolution through the social and political turmoil of the mid-1800s to the fall of the Austrian and Prussian empires in the First World War. Grillparzer, Grabbe, Kleist, Buchner, Hauptmann, and Wedekind were founders of modern drama. *Given in English every other year. Majors and minors are required to do primary reading in German and take an additional seminar hour conducted in German. Prerequisite: instructor's permission.*

311,312. Modern German Prose and Poetry German prose and poetry from about 1900 to the present, including writings by Rilke, Mann, Hesse, Kafka, Böll, Grass, as well as more contemporary writers. *Offered every other year. German 312 in English. Majors and minors are required to do primary reading in German and take an additional seminar hour conducted in German. Prerequisite: instructor's permission.*

313. Modern German Drama A study of movements in 20th-century German drama from expressionism to the contemporary scene, including the dramatists Hauptmann, Wedekind, Kaiser, Brecht, Frisch, Dürrenmatt, as well as more contemporary writers. *Offered in the spring semester every other year. Majors and minors are required to do primary reading in German and take an additional seminar hour conducted in German. Prerequisite: instructor's permission.*

314. Seminar in German Literature and/or Language A thorough investigation of a significant figure or major development in German literature or an extensive examination of selected aspects of the German language, with emphasis on seminar reports and discussions. Recent topics include: Böll und Grass, Sagen und Legenden. *Offered every other year. Prerequisite: German major or instructor's permission.*

Major: nine courses, numbered 215 and above, including 236 and, normally, 314. Eight of these courses must be taken in the department, and at least seven of the nine courses must be in the German language. Any courses toward the major taken outside the department must be approved by the German section.

Every German major who spends the junior year abroad is required to enroll in at least one German course (not independent studies) during each semester of the senior year.

Minor: five courses numbered 215 or above, normally including 231 and 236. Four of these courses must be in the German language.

Note 1: To elect a major, a student must have attained an inclusive average of at least 2.00 in all German courses taken in college.

Russian

101-104. Elementary Russian An intensive study of the fundamentals of Russian grammar, with an emphasis on the development of reading, writing, speaking and understanding skills. Short stories and songs will supplement the text. *Please refer to Graduation Requirements (Languages).*

116. Intermediate Russian Advanced grammar review incorporating controlled reading and composition. Emphasis on speaking competence continued through oral reports and conversational topics. *Prerequisite: 104 or the equivalent.*

200. Advanced Training in the Russian Language Emphasis on the development of reading, speaking and writing skills. Reading of simple

texts to acquaint the student with a variety of styles of the Russian language, concentration on some of the more difficult problems in the Russian grammar, translation, written composition, vocabulary building, and intonation. *Prerequisite: Russian 116 or equivalent, with a grade of at least C.*

221. Russian Culture and Civilization to the 1860s. A study of significant features of Russian literature, art, architecture, music and theater from the times of the Scythians through the middle of the 19th century. Major developments during the Kievan, Muscovite and Imperial periods will be highlighted. Films, slides and records will supplement the reading and lectures. *Conducted in English. Offered every other year.*

222. Russian Culture and Civilization from the 1860s to the Present. A study of the various phases in Russian intellectual thought, literature, arts and music. The focus will be on the origins, rise and fall of the Russian Avant-garde during the first two decades of our century and on the rebirth of Russian culture during the Post Stalin period. Films, slides and records will supplement readings and lectures. *Conducted in English. Offered every other year.*

223. Survey of Russian Literature in Translation. An introduction to Russian literature, presenting its development and the major literary movements from the earliest period to the middle of the 19th century. Readings will include works by Pushkin, Lermontov, Gogol, Goncharov, Turgenev, Tolstoy, and/or Dostoevsky. No knowledge of Russian necessary. *Conducted in English. Offered every other year.*

224. Survey of Russian Literature in Translation. An introduction to Russian literature, presenting its development and the major literary movements from the middle of the 19th century to the present. Readings will include works by Chekhov, Gorky, Blok, Mayakovsky, Babel, Zamiatin, Bulgakov, Pasternak, and Solzhenitsyn. No knowledge of Russian necessary. *Conducted in English. Offered every other year.*

231,232. Russian Conversation and Composition Practice in the techniques and patterns of everyday conversation, especially as these reflect different cultural orientation. Reading and discussion of short works by well-known Russian authors. *Prerequisite: 200 or the equivalent, with a grade of at least C.*



233,234. Masterpieces of Russian Literature
Reading and discussion of literary works by representative authors from the pre- and post-Revolutionary periods. *Prerequisite: 200 or the equivalent, with a grade of at least C.*

241. The Works of Tolstoy and/or Dostoevsky
A study of the major works of Tolstoy and/or Dostoevsky focusing on the artistic features of each novelist and on his place in the history of Russian culture. Parallels and contrasts between the two writers will be examined on occasions when the works of both are taught. *Conducted in English. Offered every other year.*

242. Russian Literature of the 20th Century A study of Russian Literature covering the “Silver Age”, the best of Soviet literature, and contemporary developments such as the development of literature of dissent and literature in emigration. Includes works by Chekhov, Bunin, Bulgakov, Nabokov, Pasternak, Solzhenitsyn. *Conducted in English. Offered every other year.*

260. Topics in Russian Studies In-depth analysis and discussion of selected areas and problems in Russian literature or culture. Recent topics have included: Russian Theatre and Drama, Nobel Laureates in Russian Literature, Russian Short Prose, Salvation Through Beauty: the World of Dostoevsky. *Conducted in English. Offered every other year.*

360. Topics in Russian Language and Literature A thorough investigation of a significant figure or major development in Russian literature, or an extensive examination of selected aspects of the Russian language, with emphasis on seminar reports and discussions. *Conducted in Russian. Offered every other year. Prerequisite: Russian major or instructor's permission.*

Major: At least ten courses, numbered 200 and above. Six courses must be in the Russian language. Two courses should cover Russian literature or Russian culture and civilization, one from the earlier and one from the later period: Russian 221 or 223, and Russian 222 or 224. One course should be selected from any of the Russian Literature courses offered in the department; and one should be selected from the fol-

lowing: History 253, History 254, Economics 376, Music 105*, Philosophy 261*, Political Science 253, Religion 298*, Sociology 252.

*When topic is approved by the director.

Majors will be encouraged to:

1. participate in the Interdisciplinary Russian and Soviet Area Studies Senior Seminar: Russian 401,
2. participate in a semester or summer study program in the USSR,
3. reside (for at least one year) in the Russian House.

Minor: five courses numbered 200 or above. Four of these courses must be in the Russian Language.

Note: See also Russian and Soviet Area Studies which offers a major and minor program.

Greek

See Classical Studies

Hebrew

See Classical Studies

History

"What do we learn from history?" Charlie Brown's sister asked herself. "We don't learn anything from history." Then she added, "I don't even learn anything from math."

Well, Sally, there are a couple of reasons for considering the study of history as one of the most important aspects of a liberal arts education. In the first place, it informs you about your own cultural and intellectual heritage, and the process of social, political, and economic development that produced the institutions and attitudes of our own world. The history department at Dickinson offers a range of introductory and advanced courses in both American history and in European history since the Middle Ages. In addition, living as we do in a world of many different societies and civilizations, the study of history provides information about the non-western world and comparative insights into the operation of historical processes throughout the world. We offer introductory and advanced work in the history of East and South Asia as well as courses on the Middle East and Latin America.

The second reason for studying history at Dickinson would be to acquire training in the skills of the historian—skills as basic as using the resources of a library, writing well, and reading texts critically and analytically. All courses in the department offer opportunities to master reading, writing, and research, and they are especially emphasized in a freshman-level course called Introduction to History and in the several seminars on various topics that are offered each semester.

Students graduating with a major in history sometimes go into specifically historically oriented careers such as teaching, research, and library and archival work, but most of them have found that the study of history has prepared them with the background and skills to enter such varied professions as law, business, journalism, and government.

Faculty:

Warren J. Gates, Professor of History. Ph.D., University of Pennsylvania. His areas of specialization include American social and intellectual

history and colonial America. His research deals with the issue of professionalism as it has influenced Dickinson faculty and instruction.

Clarke Garrett, Professor of History. Ph.D., University of Wisconsin. His current interests and specialization include the study of European culture, the French Revolution, and historiography and methodology, especially the application of anthropology and psychology to history. His research centers on the comparative study of popular religious movements in the 18th century, mainly in France, England, Italy, and America. (On leave 1984-85)

Stephen Weinberger, Professor of History. Ph.D., University of Wisconsin. His teaching interests center on Medieval and Renaissance history, and European intellectual history, with emphasis on the history of women, and feudal society. His current research involves conflict in medieval society, the hero, and the problem of literacy and memory.

James W. Carson, Associate Professor of History. M.A., Miami of Ohio University. With special interests in South Asia, with particular emphasis on nationalism and its consequences; his research focuses on Muslim nationalism and the evolution of Pakistan.

George N. Rhyne, Associate Professor of History. Ph.D., University of North Carolina. Teaching focuses on modern European history, with specialization on Russian and Soviet history, and diplomatic history. His current research centers on Italian history of the Fascist period.

Charles A. Jarvis, Associate Professor of History. Chairman. Ph.D., University of Missouri. His areas of specialization include U.S. diplomatic history, 19th century America, and Afro-America. Current research examines abolitionism and the Civil War, and Italian immigration to America.

Neil B. Weissman, Associate Professor of History. Ph.D., Princeton University. His areas of specialization involve the comparative history of Russia, Japan, and Germany, with emphasis on the impact of modernization on traditional soci-

ties and cultures. His research deals with revolution and political change in late Tsarist and early Soviet Russia. (N.E.H. Project Director 1984-87)

John M. Osborne, Assistant Professor of History. Ph.D., Stanford University. Teaching interests center on British and modern European history, with specialization on World War I, industrialism, and leisure. Present research interests are in the social history of recreation in Edwardian Britain.

Margaret L. Venzke, Assistant Professor of History. Ph.D., Columbia University. Her teaching interests center on Modern Europe, Islam, and the Modern Middle East. Her present research interests are peasant life in the Middle East and problems of land-tenure and taxation in Islamic society.

Kim Lacy Rogers, Assistant Professor of History. Ph.D., University of Minnesota. Her teaching interests center on recent U.S. history, urban America, and gender and family history. Research interests include biography and autobiography, oral history and institutional experiences, and sex roles in modern America.

Courses:

105. Medieval Europe A survey of the development of European civilization from the fall of Rome to the Renaissance. *A student may not receive credit for both 101 and 105.*

106. Modern Europe I Society, culture, and politics from the Renaissance through the French Revolution. *A student may not receive credit for both 102 and 106.*

107. Modern Europe II Social, cultural, and political developments in Europe from the French Revolution to the present. *A student may not receive credit for 103 or 104 and 107.*

117, 118. American History A two course survey. The first term—1607 to 1865—treats colonial, revolutionary and national America through the Civil War. The second course—1865 to the 1970s—treats aspects of political evolution, foreign policy development, industrialization, urbanization, and the expanding roles of 20th century central government. Both

courses include attention to historical interpretation. Multiple sections offered.

119. South Asia: India and Pakistan Following a survey of the development of South Asia since independence and partition, the emphasis is placed on the evolution of traditional India's institutions and peoples, with particular attention given to the impact of both Moslem and Western culture.

120. East Asia: China and Japan An introduction to the classical order in China and Japan followed by a consideration of the impact of Western intervention and internal change from the 18th century to the present. Special emphasis on the interaction between China and Japan in this period.

190. Introduction to History Through selected readings and discussion about the nature of history, and through analysis and projects related to selected historical problems the student is introduced to the art and techniques of the discipline. *Normally elected in the freshman year.*

211. Studies in American History Selected areas and problems in American history.

213, 214. Studies in European History Selected areas and problems in European history. *214 offered in Bologna only.*

215. Studies in Comparative History Selected trends and problems studied comparatively in various periods and geographical areas.

222. Feudal Europe A study of the emergence of feudalism and an evaluation of its role in the development of Western Europe. *Offered every other year.*

223. Renaissance Europe A study of prevailing conditions (social, economic, political, and cultural) in western Europe with particular attention given to the achievements and failures of the Renaissance. *Offered every other year.*

230. Modern Germany From the 19th century to the present. Emphasis on political and cultural responses to socio-economic change, including German liberalism, the Bismarckian settlement, origins of world war, Weimar democracy and Nazism. *Offered every other year.*

231. Modern France French society, culture, and politics from the Old Regime to the present. *Offered every other year.*

232. Modern Italy A survey of social, cultural, and political developments from the beginnings of the Risorgimento in the 18th century to the post-war period, including the effects of the Napoleonic period, the unification of Italy, World War 1, Fascism, World War 11, and the Cold War. *Offered every other year.*

233. The First World War A study of the causes, progress, and consequences of the first global conflict of modern times. Particular attention is paid to the political and social impact of “total warfare” on the participating nations. *Offered every other year.*

234. Europe: 1914-1945 An examination of the evolution of European society between 1914 and 1945 under the impact of Communism, Fascism and world war. *Offered every other year.*

235. Industrial Europe The social, economic, and cultural impact of the rise of industrialism and modernization on western Europe from 18th century beginnings to the full maturation of industrial society. *Offered every other year.*

236. Comparative Revolutions Comparative consideration of major revolutions such as those in France (1789), Russia (1917), and China (1949) in terms of causation, program, dynamics, and longterm effect. *Offered every other year.*

243,244. English History: 55 B.C. to Date First semester: The emergence of a unified English society, and its political expression, to 1688 with particular attention to social, economic, and institutional developments. Second semester: The political, economic, and social development of Great Britain, domestically and internationally, as a major power in the 18th and 19th centuries, and the abandonment of that role in the 20th century.

247. American Colonial History English America from the epoch of settlement through the achievement of independence. Particular attention is given to the causes and course of the American Revolution. *Offered every other year.*

249, 250. American Intellectual and Social History Selective study of leading thought, beliefs, myths popular interests and institutional expressions of social and intellectual positions. Topics such as Puritanism, the Enlightenment, the Great Awakenings, revolutionary political/social thought, Transcendentalism, communitarian experiments, perfectionism and antebellum culture receive attention in the first course. Darwinism, development of higher education, voices of social criticism, roles and alienation of the intellectuals, changes in high and popular culture and conflicting values of the 1960s are representative of points treated in analysis of modern America.

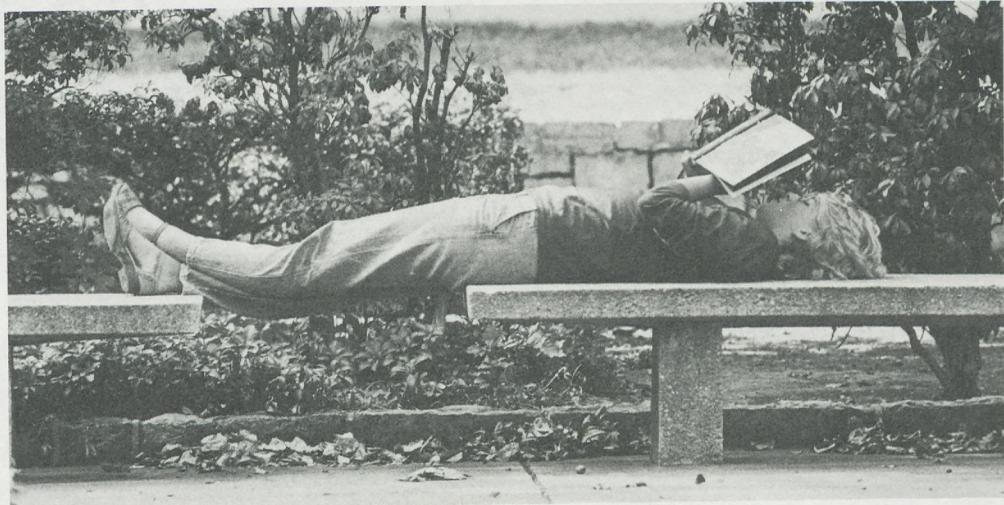
253, 254. History of Russia First semester: from earliest times through the reign of Alexander 111. Second semester: fall of the tsardom, the Russian revolution, and the Communist state from Lenin to Krushchev.

257. European Intellectual History Main currents of western thought from the 17th century to the present with emphasis upon the interaction of ideas and social development. *Offered every other year.*

258. 19th-20th Century European Diplomacy European diplomatic history from the Congress of Vienna through World War 11. *Offered occasionally.*

259. Europe Since 1945 A social, political, and diplomatic study of the nations of Europe from the end of the Second World War to the present including the early East/West division, the development of NATO and the Warsaw Pact, economic recovery, and the growth of economic and political integration.

260. Japanese Modernization An investigation of the impact of modernization on Japanese society over the last century. Special emphasis on conflicting interpretations of Japanese constitutionalism, imperialism, and militarism and on the relevance of Japan’s historical experience for an understanding of her contemporary condition. The course is not a survey, but no previous knowledge of Japanese history is required. *Offered every other year.*



261. China: Revolution and Modernization An examination of the interaction between the themes of modernization and revolution in China over the last century. Emphasis on alternative programs for a new Chinese order including Nationalism and Communism. The course is not a survey but no previous knowledge of Chinese history is required. *Offered every other year.*

262. Modern South Asia Crises in Indian civilization of 19th and 20th centuries. Impact of Western control and the evolution of nationalism resulting in independence and partition in 1947. Contemporary nations and cultures; India, Pakistan, and Bangladesh. *Offered every other year.*

281. Recent U.S. History Examination of the social, political, and economic development of the U.S. since the New Deal.

282. Diplomatic History of the United States Description and analysis of the nation's role in world affairs, from the earliest definitions of a national interest in the 18th century, through continental expansion, acquisition of empire, and world power, to the Cold War and retreat from intervention; emphasis on alternate models of explanation.

287. American Constitutional History The framing of the Federal Constitution and its his-

torical development, with emphasis on evolving interpretation by the courts. *Offered every other year.*

288. American History in the Civil War Period An analysis of the political, economic and intellectual aspects of 19th century America from 1828 to 1865. Attention is given to the causes and course of the Civil War.

289. Afro-American History A survey of black history from pre-colonial Africa and the origins of slavery in the American colonies to the urban migrations of the 20th century.

290. U.S. Ethnic History The role of immigration and ethnicity in American history. Topics include patterns of migration and residential configurations, the immigrant church, ethnic politics, and comparative ethnic mobility. *Offered every other year.*

291. Cities in American History A general overview of America's urban environment from the preindustrial to the postindustrial city. Common patterns found in America's great variety of cities will be explored. Topics include the early processes of town building, industrialization and the city, urban reform movements, and the origins of modern city planning. Special attention will be given to evaluating the methodological approaches to the "new urban history." *Offered every other year.*

389. Seminar in European History Selected topics. *Prerequisite: Permission of the instructor.*

390. Seminar in American History Selected topics. *Prerequisite: Permission of the instructor.*

391. Seminar in Asian History Selected topics. *Prerequisite: Permission of the instructor.*

Major:

Ten courses including:

- I. (Must be completed or in cursu at time of acceptance as a major.)
- II. One of the following: History 389, 390, 391, Philosophy 385, or when approved in advance by the department, a semester course in history in Independent Study or Independent Research which treats some aspect of the methodology or philosophy of history.
- III. Two of the following American History courses: 211, 247, 249, 250, 281, 282, 287, 288, 289, 290, 291, 390.
- IV. One European History course prior to 1650: 105, 106, 213 (if appropriate), 222, 223, 243, 253. B. One additional European history course: 213, 222, 223, 230, 231, 232, 233, 234, 235, 236 (if appropriate), 243, 244, 253, 254, 257, 258, 259, 389.

Note: One of the following courses may be substituted either for requirement IV.A. or IV.B.: Classics 251, 252, 253, or 254.

V. One Non-Western History course: 119, 120, 215 (if appropriate), 260, 261, 262, 391.

Minor: Six courses, including at least two in American and two in European history.

Humanities

120. Masterpieces of the Western World A small number of masterworks representing the various arts are studied and celebrated with the intention of discovering the conditions and characteristics of artistic inspiration and achievement which both glorify the culture of a specific era and transcend the boundaries of time and place to speak to every age. Works from the ages of Classical Athens, 16th or 17th Century Europe, and 20th Century U.S.A. are analyzed with emphasis upon the dialectics of form and content and upon their social and biographical contexts. *Open to freshmen and sophomores.*

220. Masterpieces of the Western World This course will have the same syllabus as Humanities 120. Identical materials are covered and lectures given jointly. However, the course will have its own discussion groups, and a more advanced level of interpretive skills will be assumed both for group discussions and for evaluation. *Open to juniors and seniors.*

Note: Students may take either course for credit but not both. Either course fulfills Group 1 of the Humanities Division distribution requirement.

Interdisciplinary Studies

200. Studies in Sport, Leisure and Play Comparative and contemporary perspectives on human structuring of leisure time. Instructors from various academic disciplines and physical education will explore sport, games and play through time, across cultures, and in contemporary American society with an emphasis on the value structures which inform leisure activity.

300. The Bologna Practicum An interdisciplinary seminar focusing on the City of Bologna. Guest participants include administrators, political figures, art experts, and others with local expertise. *To be offered only in Bologna.*

Note: Courses given under this rubric are normally taught by faculty members from at least two different disciplines and will be approved on a semester by semester basis by the Committee on Academic Program.

International Studies

Professor K. Robert Nilsson (political science), Director

An interdisciplinary major which draws on the perspectives of economics, history, and political science to examine international relations in a changing world environment. To these disciplines are added cultural studies concerning a geographical area of the student's choice: e.g., a language of the area and selected courses in the area's literature, philosophy, music, art, or religion. The interdisciplinary experience is completed with an integrative research seminar and a comprehensive examination. The program is intended to prepare a student either for graduate studies or for a career with an international focus.

290. Selected Topics in International Studies
Special topics not usually studied in depth in course offerings are examined.

401. Interdisciplinary Seminar Research which integrates the various disciplines in the major, normally involving the student's geographic area.

402. Integrated Study During one semester of the senior year the student will enroll in an independent study. In it he or she will prepare for an examination in the core disciplines and in his or her area. The examination will be administered by the supervising committee, which will announce at the beginning of the semester whether the exam will be oral, written, or both.

I. Core Disciplines: Eight courses in the core disciplines (economics, history, and political science) are required. They must include the following, plus two electives. Electives must be clearly international in content or pertain directly to the student's area of geographic concentration.

Political Science 170 (International Relations)
Political Science 280 (American Foreign Policy)
or Political Science 281 (American National Security Policy)

History 282 (U.S. Diplomatic History)

History 258 (19th-20th Century European Diplomatic History) History 104 may be substituted, but only with prior approval of the program director; approval only if 258 is not available and if written work on diplomacy is required)

Economics 112 (Introduction to Macroeconomics)

Economics 248 (The World Economy) or Economics 348 (International Economics)

II. Area Courses: Five courses in one geographic area (Asia, Latin America, Russia and Soviet Union, Western Europe; Western Europe courses must focus on a single nation, though broader continent-wide work is desirable) exclusive of courses taken to meet requirements in the core disciplines. Three of these courses must be in the humanities. These courses must include:

- a. one course in the history of the area or nation of concentration (Western Europe courses must be in the appropriate national history wherever possible),
- b. one language course beyond the 116 level in the language of the area or nation of concentration,
- c. one course surveying at least one major aspect of the culture/civilization of the area or nation of concentration.

Note: No core or area courses may be taken Pass/Fail.

III. Interdisciplinary Seminar Research: International Studies 401 seminar taken in the senior year.

IV. Integrated Study International Studies 402

Study Abroad—One or two semesters (fall, spring, or summer): A student may choose, with the approval of the supervising committee, any program of foreign study in the context of an international studies semester abroad program. Although majors are encouraged to go abroad, study abroad is not required.

Departmental Honors A student will be awarded departmental honors if the student has a 3.00 average overall and in the major, an A or A- in International Studies 401, and Honors in International Studies 402.

Italian

See French and Italian

Italian Studies

Assistant Professor Davidson, (French) Director

The interdisciplinary minor in Italian Studies consists of five courses: three courses in Italian (231, 250, and 290) and two courses from the following group*: Fine Arts 301 - Italian Renaissance Art; Fine Arts 303 - Baroque Art; Music 104 - History of Opera; Music 351 - Seminar in Medieval and Renaissance Music; History 223 - The Italian Renaissance; Political Science 275-276 - Studies in Modern European Politics.

Note: One Independent Study may be chosen in place of one of the electives from the above list. Students who have spent a year in Bologna and did a research project under the supervision of a faculty member in Italy (Bologna Practica) can include this course in their interdisciplinary minor or major.

*Elective course selections must be approved, and the completion of the minor certified, by the coordinator of the program. Students are strongly advised to contact Professor Davidson as soon as they have decided to declare their major and if at all possible before their junior year if they plan to go abroad.

Judaic Studies

Associate Professor Rosenbaum (religion), Director

An interdisciplinary major designed to allow broad comprehension of Jewish civilization in its interaction with the civilizations of the ancient and modern world and in particular the Middle East. The major prepares students for further study or career in Judaics and related vocational pursuits.

Major:

1. Required courses:
 - a. Hebrew 211,212 (Second Year Biblical Hebrew)
 - b. Religion 103 (Torah, Prophets & Writings)
 - c. Religion 204,205 (History of the Jews)
Both semesters should be completed by the student's senior year.
2. One of the following pairs of courses:
 - a. Religion 211a or 211b (Jews and Judaism in US, 1654-; American Jewish Fiction)
 - b. Religion 206,203 (Modern Jewish Thought, Studies in Hebrew Scripture)
 - c. History 190 (Introduction to History) Philosophy 230 (Philosophy of Religion)
 - d. Religion 108,109 (Emergence of the Christian Tradition, Emergence of the Protestant Tradition)

(Suitable equivalent pairs may be used)
3. One upper level seminar OR Independent Study, with approval of the Director.
4. Two additional courses congruent with the direction of student's major interest within the field.

Latin

See Classical Studies

Latin American Studies

Professor Enrique Martinez-Vidal (Spanish),
Director

The certificate program in Latin American Studies is intended to allow students with varying interests and academic majors (such as history, economics, education, fine arts, political science, international studies, anthropology and Spanish) an opportunity to develop an understanding and appreciation of Latin American civilization. It also provides students the opportunity to work closely with a core of professors with special training, experience, and enthusiasm in this field. The program offers a valuable preparation for those planning graduate work to become teachers, social workers, government officials or managers in private business enterprises active in Latin America. The certificate also provides an advantage to students in seeking admission to graduate programs specifically concerned with Latin America.

Achievement of the Certificate in Latin American Studies requires (1) the successful completion of Latin American Studies 201; (2) completion of six other approved courses or independent studies dealing with Latin America taken in at least three academic departments e.g. Anthropology 221 and 222, Economics 349, Political Science 251, Spanish 232 and 242, etc.; (3) demonstrated language proficiency in Spanish or Portuguese, equivalent, as a minimum, to the completion of a 200-level conversation and composition course; (4) the completion of an interdisciplinary research paper written under the supervision of at least two faculty members from different departments, and for which one course credit will be offered under Latin American Studies 490; and (5) the successful oral defense of the research paper before a committee of at least three program professors. Participation in the Mexico City Program of the Institute of European Studies or an equivalent study-abroad experience is encouraged but not required.

201. Introduction to Latin American Studies A multi-disciplinary, introductory course in Latin American Studies designed to familiarize students with Latin American societies through a study of their history, economics, politics, literature, and culture. The purpose of the course is to provide a framework or overview to enhance understanding in the students' future courses in particular disciplines and specific areas of Latin American study. *No prerequisite, required of all Latin American Certificate candidates.*

490. Latin American Interdisciplinary Research Research into a topic concerning Latin America which is directed by two or more faculty representing at least two disciplines. Students must successfully defend their research paper to obtain course credit. Designed to satisfy requirement four (4) of Latin American Certificate Program. *Prerequisite: Seniors in the program.*

Note: Students must apply to the Latin American Studies Program by the beginning of their junior year. See also Special Options: The Latin American Studies Program.

Library Resources

Believing that education has more to do with the learning process than it does with the acquisition of specific knowledge, the college librarians are eager to assist Dickinson students to think critically about their information needs, to learn how to do a logical search, and to evaluate materials located for a particular project. Instruction in these skills, necessary for the successful pursuit of the liberal arts, takes place in the library when individual students ask for help, in freshman seminars, in bibliographic instruction sessions in a variety of courses, and in the half credit course, Introduction to Library Research, listed below.

Skill in the location, evaluation, and use of recorded information is crucial not only to success in the educational enterprise at Dickinson,

but also to continued success as students move on to graduate schools and into the world of work. The Department of Library Resources is dedicated, therefore, to providing Dickinson students with the cognitive skills they will need to fulfill their information needs throughout their lives.

Faculty:

Yates Forbis, Associate Professor of Library Resources. M.A., Appalachian State University and M.S., Columbia University. His major reference area work is in history, economics, and fine arts with skill in data base searching. His graduate work in American material culture has led to his teaching in this field, focusing on architecture, folk art, and the decorative arts. (On leave spring 1985)

Joan M. Bechtel, Librarian. M.S. in L.S., Drexel University and M.A., University of Pennsylvania. The core of her scholarly interests is in European intellectual history, particularly in the Renaissance and Reformation periods. Her current research on women in 16th-century England grows out of her work with John Foxe's Book of Martyrs as it reflects the social history of the period.

Martha C. Slotten, Librarian and College Archivist. M.A., University of Wisconsin, M.A., Shippensburg State College. Her curatorship of manuscripts, rare books, and archives includes her supervision of wide student research with these materials. Her own research centers in the 18th century, particularly in the literary culture of Philadelphia. Other scholarly interests are in women's studies and black history.

Annette LeClair, Librarian. Chairwoman. M.A., University of Virginia, M.S. in L.S., University of North Carolina. Her primary library responsibility is for the development of the computerized library catalog, Auto Cat, and her current research interests are in the literature of travel.

Sue K. Norman, Librarian. M.A., SUNY at Albany and M.A. in L.S., University of Iowa. She divides her time between the cataloging and reference areas of the library. Her language

study (French, Russian, Portuguese, and Spanish) attest to her interest in linguistics. Other research interests include secondary education in the inner city, remedial writing instruction, and in poetry.

Ella M. Forsyth, Librarian. M.M., Mount St. Mary's College, Los Angeles, M.L.S., University of California at Los Angeles. Her primary responsibilities are in cataloging, reference, and government documents. Her interests include music performance and music bibliography.

John C. Stachacz, Librarian. M.A., M.S.L.S. University of Kentucky. His major assignments in the library are reference, periodicals with principle oversight of the audio-visual room, and data base searching. His interdisciplinary interests include political and agricultural geography and ecology.

Alesandra M. Schmidt, Librarian. M.A., University of Pennsylvania, Ph.D., Bryn Mawr College, M.L.S. University of Rhode Island. Her primary responsibilities are cataloging, reference, and the supervision of interlibrary loan services. Her special library interests are in early printed books, with current studies centering on incunabula. Other scholarly interests include Greek lyric poetry and the classical tradition.

Terrence C. Poe, Librarian. M.L.S., Rutgers University. His areas of specialization include 18th Century French social and intellectual history, post-1945 political and intellectual history, and history of popular culture.

Courses:

101. Introduction to Library Research A study of the resources of a college library including books, periodicals, indexes, abstracts, bibliographies, U.S. Government Documents, manuscripts, and reference sources in the various disciplines. Attention is given to effective research strategies, and to selection and evaluation of sources. *One-half course credit. Offered first seven weeks of each semester.*

Mathematical Sciences

During a 5,000-year history, the mathematical sciences have flourished most when the general level of civilization has flourished most and never so much as in our Western civilization at the present time. They have been a spring of delight and source of wonder to all with eyes to see and minds to grasp, a source of understanding of the world around us, and, increasingly, of the world within us. In subject matter, the main branches, pure mathematics, statistics, operations research, and computer science, vary, but all are structured; parts and the whole are articulated and stand in definite relations to one another. Numerical and geometric relations are the most familiar but by no means the only examples. These sciences are logical; properties are soundly inferred from fundamental ones and so their conclusions are universally valid, which implies that they are not to be upset by any developments in the special sciences. They are increasingly algorithmic; processes are designed and studies and their properties established.

Our courses are organized into two major programs, Mathematics and Computer Science, but many selections from either or both are not only possible but encouraged. In general terms, the programs start with the more immediately applicable (Calculus and Introduction to Computing), develop themes suggested therein (Analysis, Linear Algebra, or Programming Language Structures), branch out in other directions as appropriate to personal interests (e.g. Statistics or Information Systems), and finally return to foundational questions (Analysis and Discrete Structures).

All this can be the study of a lifetime and the beginning of many fruitful careers. Some will wish to continue their educations in graduate school; this is necessary for academic life but useful for others also. Apart from the obvious opportunities in business for those with a good background in computing, there are a host of interesting positions in governmental and industrial research and that is most particularly true

for those who have also developed a collateral background in a field of application such as any of the natural or social sciences, particularly psychology and economics.

Faculty:

Peter E. Martin, Professor of Mathematics. Ph.D., Harvard University. His scholarship has included classical analysis, particularly functions of a complex variable and conformal invariants, formal logic with emphasis on provability and computability, and most recently the mathematical theory of languages, both formal and natural ones.

Lee W. Baric, Professor of Mathematics. Ph.D., Lehigh University. His research interests lie in Schauder bases in Banach spaces and in generalized summability. He is also conducting research in electronics, specializing in the design of filters utilizing piezo-electric crystals. (On leave fall 1984)

John H. Light, Professor of Mathematics. M.S., The Pennsylvania State University. He is primarily interested in applied mathematics and has served as a mathematics consultant to several individual and group interests. His current interest lies in the area of problem solving involving the use of mathematical models and patterns of thought and is directed toward sharing with the liberal arts student the virtue, beauty, and truth of mathematics.

Jack R. Stodghill, Associate Professor of Mathematics. Ph.D., Brown University. His scholarship has centered on the representation theory of Lie algebras and in particular on the Adams operators. His current research concerns the linearity aspects of mathematics and such closely related areas as statistics.

Charles M. Harvey, Associate Professor of Mathematics. Ph.D., Stanford University. His research centers on the area of decision analysis in the field of operations research. Currently, his research is on the mathematics of social decision making. Previous research has also been in partial differential equations, numerical analysis, and statistics.

E. Robert Paul, Associate Professor of Computer Science and History of Science. Chairman. Ph.D., Indiana University. His scholarship involves computer graphics and microcomputer architecture, programming languages, algorithmic processes, applications programming, social uses of computing, and history and philosophy of science. His most recent research deals with computer graphics and shifting paradigms in emerging scientific frameworks.

Richard A. Howland, Associate Professor of Mathematics and Computer Science. Ph.D., University of Massachusetts. Research areas include Lie Algebras, Noncommutative Ring Theory and Automata Theory. Current interest is in the areas of Loop Switching and languages.

Nancy H. Baxter, Assistant Professor of Mathematics. Ph.D., Rutgers University. Her scholarship is concentrated in the areas of non-linear functional analysis. Her current research examines a non-linear integral equation with particular emphasis on the application of numerical methods.

Thomas Valente, Instructor in Mathematical Sciences. M.A., Wesleyan University.

Noni M. Bohonak, Instructor in Mathematical Science. M.S., University of Tennessee.

Computer Science

101. A Survey of Computing An introduction to structured programming and to the use and direct application of computing in several different areas currently used by the college, as well as an examination of the present and potential impact of computers. *This course will not satisfy the Division III Distribution Requirement. Not open to students who have had a higher level Computer Science course.*

131, 132. Introduction to Computing I, II An introduction to computing as a major science; problem solving and structured programming;

development and analysis of algorithms, introducing searching and sorting, recursion, information structures (arrays, records, files, linked structures), simulations, numerical computation. The programming language Pascal will be introduced and used throughout. *CS131 will not satisfy the Division III Distribution Requirement.*

203, 204. Special Topics Topics to be announced when offered. *Prerequisite: permission of the instructor. One-half or one course.*

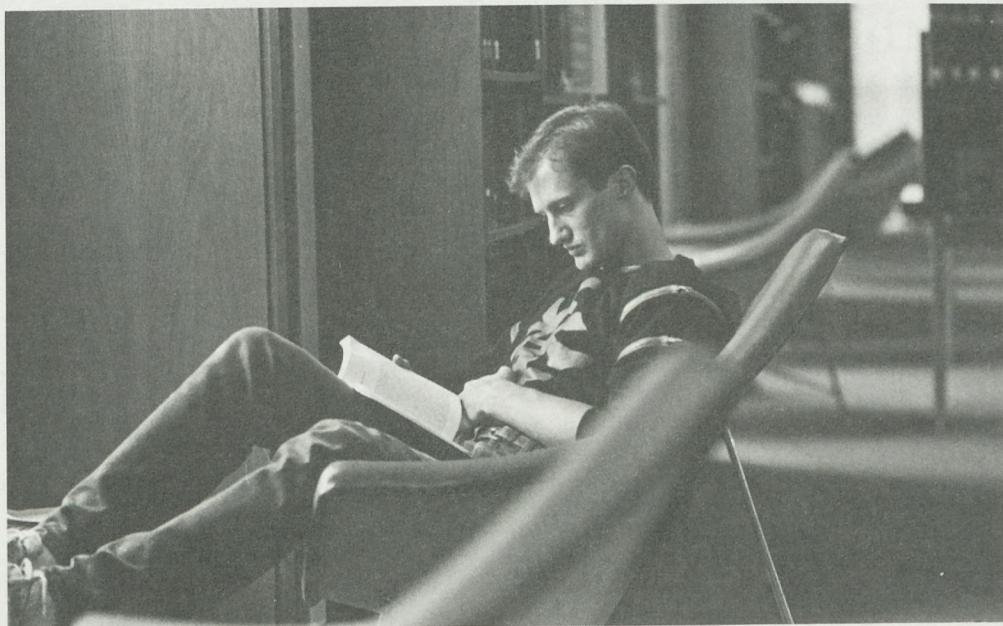
211. Programming Language Structures Basic properties and special facilities of such higher level languages as PASCAL, FORTRAN, LISP, and SNOBOL; data types, scope rules, block structure, procedure calls and parameter types, storage allocation considerations. *Prerequisite: 112 or 132. A student may not receive more than one credit from 211 or 201A (Fall 1979).*

231. Information Structures The representation, manipulation, and use of such structures as lists, stacks, queues, trees, and graphs; the organizing of information; file processing and information retrieval considerations. *Prerequisite: 112 or 132.*

232. Information Systems Relational, hierachic, and network models in data base management; data definition languages and data manipulation languages; natural language processing and human information processing may be considered if time permits. *Prerequisite: 231. See note 2.*

353. Structure of Computers and Assembly Language Programming Computer architectures, logical design, data representation, machine arithmetics, conventional machine level instructions, assemblers and loaders; an introduction to assembly language programming. *Prerequisite: 231.*

354. Operating Systems A survey of operating systems software; batch, multitasking and time-sharing operating systems. Process management and scheduling, memory management and addressing; filing systems. *Prerequisite: 231. See note 2.*



282. Numerical Methods A study of algorithms for the efficient approximation of definite integrals by numerical quadrature, the solution of non-linear equations, of linear systems of equations, and of the solution of differential equations. *Prerequisite: 112 or 132 and Mathematics 262 or concurrent registration therein. (Also listed as Mathematics 282.) See note 2.*

301. Computers and Society An in-depth examination of the phenomenon of the computer both as a concept and as a machine, and to its many societal dimensions. Includes an exploration of social uses of computing, and a treatment of selected ethical, intellectual, and philosophical issues. A substantial project at the meta-computing level will be required of each student. *Prerequisite: CS231 and any other two-hundred level course.*

311. Discrete Structures Logic and Computability, elementary algebraic structures, Design and Construction of Finite State Machines, and Theory of Graphs. *Prerequisite: Mathematics 241 and Computer Science 112 or 132. (Also listed as Mathematics 311.)*

312. Theoretical Computer Science One or more of formal languages, compiler construc-

tion, formal logic, computational complexity; and analysis of algorithms. *Prerequisite: 311. (Also listed as Mathematics 312.) See note 2.*

403, 404. Special Topics Topics to be announced when offered. *Prerequisite: permission of the instructor. One-half or one course.*

Major: 9 courses above 131 including: 132, 211, 231, 301, 311, 353, and at least two courses from 232, 312, and 354. The remaining course may be from Computer Science, Mathematics 331 or 332, or may be a course in a field of application as approved in advance by the department upon petition by the student. In addition, Mathematics 162, 222 and 241 are required.

Minor: 6 courses in Computer Science including Computer Science 231. Mathematics 331 or 332 may be substituted for one of the other 5 courses in Computer Science.

Note 1: All Computer Science courses except 111 and 131 satisfy the Division III, 2 distribution requirement.

Note 2: Computer Science 232, 252, 282, 311, and 312 are given in alternate years. For exact scheduling check with the department.

Mathematics

100. Elementary Mathematics To assist students whose background in mathematics is deficient. A brief review of the highlights of algebra, trigonometry, and analytic geometry. *Prerequisite: Permission of the instructor. This course does not count towards the requirements of a major or minor and will not satisfy the Division III Distribution Requirement.*

110. Mathematical Modeling Introduction to the methodology of modeling as a technique useful in working towards the solution of real world problems. A variety of mathematical tools will be utilized at an elementary level. *This course will not count toward the requirements of a major or minor. A student may not receive credit for both 110 and 211.*

121. Elementary Statistics An introduction to statistical inference, including such topics as measures of central tendency and dispersion, tests of hypotheses, and correlation. *Prerequisite: 100 or its equivalent. This course will not count toward the requirements of a major or minor. A student may not receive credit for both 121 and 221.*

***161, 162. Calculus I, II** Derivatives and integrals of functions of one variable with such applications as maxima and minima, curve tracing, velocity and acceleration, and area and volume. Brief introductions, as time permits, to differential equations, series, and functions of two variables. *Prerequisite: Mathematics 100 or equivalent preparation.*

201, 202. Special Topics Topics to be announced when offered. *Prerequisite: permission of the instructor. One-half or one course. May count toward the major if so announced in advance.*

222. Probability Elementary probability concepts for finite, discrete, and continuous probability spaces; counting methods, random variables and expected values; some common probability distributions; joint probability distributions. *Prerequisites: 162. See note 3.*

241. Discrete Mathematics An introduction to set theory, logic and Boolean algebra, switching networks, linear algebra, graphs, automata, and grammars. *Prerequisite: Mathematics 162.*

***261, 262. Calculus III, IV** Introductory linear algebra, multivariable calculus including partial derivatives and multiple integrals, and differential equations. *Prerequisite: 162 or equivalent preparation.*

282. Numerical Methods A study of algorithms for the efficient computer approximation of definite integrals by numerical quadrature, the solution of nonlinear equations, of linear systems of equations, and of the solutions of differential equations. *Prerequisite: 262 or concurrent registration and Computer Science 132. (Also listed as Computer Science 282.) See note 3.*

311. Discrete Structures Logic and Computability, elementary algebraic structures, Design and Construction of Finite State machines, and Theory of Graphs. *Prerequisite: Mathematics 241 and Computer Science 112 or 132. (Also listed as Computer Science 311).*

312. Theoretical Computer Science One or more of formal languages, compiler construction, formal logic, computational complexity, and analysis of algorithms. *Prerequisite: 311. (Also listed as Computer Science 312.) See note 3.*

***321, 322. Statistics** An introduction to the mathematical theory of probability and statistics, including a study of probability distributions and their parameters, statistical inference, tests of significance, estimation, and tests of hypotheses. *Prerequisite: 222 and 262. See note 3.*

331. Operations Research Uses of linear optimization models, solutions of linear systems of inequalities, the simplex algorithm, duality theory, and sensitivity analysis. The last quarter may be concerned with an additional topic such as dynamic programming or decision analysis. *Prerequisite: 261 and Computer Science 112 or 132. See note 3.*

332. Topics in Operations Research Topics to be chosen from the following areas: decision analysis, utility theory, cost benefit analysis, statistical decision theory, graph theory, game theory, and group decision making. Topics will vary from year to year. *Prerequisite: 261 and Computer Science 112 or 132. See note 3.*

***341, 342. Mathematical Physics** Analytical and numerical techniques for the mathematical analysis of physical phenomena. Topics include advanced vector analysis and matrix methods, techniques for solving ordinary and partial differential equations used in physics, the solution of boundary value problems, the properties and use of functions of a complex variable, Green's functions, Legendre Polynomials and Bessel Functions. *Prerequisite: 262 and Physics 132. (Also listed as Physics 341, 342.) Given by the Physics Department.*

351. Algebraic Structures An introductory treatment of fundamental algebraic structures such as groups, rings, and fields. *Prerequisite: 261.*

352. Linear Algebra An introduction to vector spaces, linear transformations and elementary canonical forms, inner product spaces, and operators on inner product spaces. *Prerequisite: 261.*

***361, 362. Analysis I, II** The real number system, limits, continuity, convergence, differentiation, integration, infinite series, and higher dimensional calculus. *Prerequisite: 262.*

372. Complex Analysis An introductory study of functions in the complex plane. Topics will include: complex numbers and functions, the theory of differentiation and integration of complex functions; Cauchy's integral theorem; the Residue theorem; conformal mappings. *Prerequisite: permission of the instructor.*

381. Topology An elementary study of metric and topological spaces touching upon open and closed sets, compactness, and connectedness. *Prerequisite: permission of the instructor.*

401, 402. Special Topics Topics to be announced when offered. *Prerequisite: permission of the instructor. One-half or one course.*

Major: At least 8 courses above 202 including 261, 262, 352, 361, 362; at least 2 of the remaining courses must be numbered above 300, Computer Science 132.

Minor: 6 courses including 262.

Note 3: Mathematics 222, 282, 311, 312, 321, 322, and 331, 332 are given in alternate years. For exact scheduling, check with the department.



Military Science

The Department of Military Science adds another dimension to a Dickinson College liberal arts education by offering courses which develop a student's ability to organize, motivate, and lead others.

Participation in Military Science courses during the freshman and sophomore years results in no military obligation. Courses during these years orient students on the various roles of Army officers. Specifically, these courses stress self development: written and oral communication skills, leadership, bearing, and self confidence.

Individuals who elect to continue in the program during the junior and senior years will receive a commission as a second lieutenant in the U.S. Army Reserve upon graduation. They will be required to serve three months, three years, or four years in the active Army, depending upon type of commission.

The following courses are required to satisfactorily complete the Army ROTC program:

Freshman Year **Military Science** 101, 102

Sophomore Year **Military Science** 201, 202

Junior Year **Military Science** 301, 302

Senior Year **Military Science** 401, 402

Options are available for those individuals who encounter scheduling conflicts or who desire to begin participation after their freshman year. Contact the department for further information.

Program participants may take part in various enrichment activities during the academic year: rappelling, rifle qualification, cross-country skiing, white-water rafting, leadership exercises, land navigation, and formal social functions. Program participants may also apply for special training courses during the summer: Russian language, flight orientation, airborne, air assault, and northern warfare schools.

Although some Military Science graduates make a career out of the Army, most use their rigorous, active Army leadership and management experiences as a springboard for high-powered careers as entrepreneurs, corporate officers and managers, attorneys, and government executives.

Faculty:

David C. Ungerer, Professor of Military Science. M.A., Boston University. Lieutenant Colonel, U.S. Army, Military Intelligence. Assignments include staff positions at various levels, to include the Pentagon. Academic directions have been in the field of education.

James E. Covert, Instructor in Military Science. B.S., United States Military Academy. Captain, U.S. Army, Field Artillery. He instructs third year Military Science. His assignments include company level command, and staff positions at brigade and battalion levels. His interests include woodworking.

A. Scott Childs, Instructor in Military Science. B.S., Augusta College. Major, U.S. Army, Signal Corps. He instructs Command and Staff. His assignments include company level command and staff positions at battalion, service school, and Department of the Army levels. His interests include the restoration of antique clocks and watches.

James F. Shigley, Instructor in Military Science. M.A., The John Hopkins University. Captain, Adjutant General Corps, Maryland Army National Guard. Instructs first year Military Science and military history. Research has centered on mid to late 19th century American History, particularly the social and cultural aspects of American political life. Interests include biography, classical music, literature, photography, and railroads.

Advanced Leadership Practicum: A six-week summer training program at an Army installation which stresses the application of military skills to rapidly changing situations. Participants are evaluated on their ability to make sound decisions, to direct group efforts toward the accomplishment of common goals and to meet the mental and physical challenges presented to them. Completion of this practicum is required prior to commissioning and it is normally attended between the junior and senior years. Participants receive room, board, travel expenses and medical care, and are paid for the six-week period.

Financial Assistance: Books and equipment for military science courses and the ROTC program are provided free of charge to all cadets. All juniors and seniors in the ROTC program (Advanced Course) and scholarship cadets are paid a tax-free subsistence allowance of \$100 a month and receive certain other benefits.

Physical Education Credit: Physical education activity units for military science may be earned for summer camp (two units) and for completion of both junior and senior year levels of military science leadership laboratory (one unit).

Scholarships: Army ROTC scholarships based on merit are available. Recipients receive full tuition, academic fees, book and supply expenses (not room and board), and a \$100 per month subsistence allowance. High school seniors may apply for four-year scholarships, and cadets enrolled in the program may compete for three-year (starts in sophomore year), two-year (starts in junior year) and one-year (starts in senior year) scholarships. Information may be obtained from high school counselors, any Army ROTC professor of military science, or any Army installation. Recipients agree to a four-year active service obligation. Scholarships are also available for students entering medical school or pursuing graduate studies in the basic health sciences. Selected ROTC graduates are also eligible for scholarships to pursue graduate studies in other academic disciplines. For additional information contact the Chairman, Military Science Department.

Corresponding Studies Program: Students participating in an off-campus study program in the United States or abroad may continue participation in either the Army ROTC Basic Course or Advanced Course and receive the same course credit and benefits as a student enrolled in the on-campus program. Army ROTC Scholarship students are also eligible to participate in this program. For more information contact the Chairman, Military Science Department.

Non-Dickinson Students: Students pursuing a baccalaureate or advanced degree program at nearby colleges are eligible to cross-enroll in the Dickinson College ROTC program. These

schools have registration or transfer procedures which allow full or partial credit toward graduation for military science courses taken through Dickinson. Contact this department for further information.

Departmental Courses:

101, 102. **Introduction to Military Science** Emphasis on developing self-confidence and bearing. Instruction and weekly practical training in basic skills such as map reading, rappelling, weapons, communications, first aid, tactical movements, customs and courtesies, public speaking, and leadership. Meets one hour per week each semester. Also four to six Saturdays of voluntary adventure training and one formal social event each semester.

111. **American Military History** Survey of American military history from the initial settler/Indian conflicts to the post-Hiroshima, post-Vietnam world of today. Critical analysis of the changes in the ways American armies fought, organized to fight, and planned to fight the enemy. Also includes a study of the evolution in strategic thinking, civil-military relations, and the status of reserve forces. One course credit.

201, 202. **Application of Military Science** Participation in operations and basic tactics to demonstrate leadership and management problems, and to illustrate various processes of resolution. Meets two hours per week in each semester.

211. **Organization and Management** Concepts of organization theory and the principles of management. Management and leadership relationships are investigated as they apply to the general theory and practice of the management functions of planning, organizing, staffing, direction, coordination, control, innovation and representation. One-half course credit.

301, 302. **Advanced Application of Military Science** Emphasis on leadership. Situations require direct interaction with other cadets (students) and faculty members. The participants set well-defined goals and develop procedures for goal attainment. Meets two hours per week in each semester. *Prerequisite: open only to advanced course cadets.*

321. Leadership and Management Principles and techniques of effective leadership, methods of developing and improving managerial abilities and leadership qualities, and a basic understanding of interpersonal interactions. Use is made of recent developments in the administrative and the behavioral sciences to analyze the individual, group and situational aspects of leadership, and the management of resources. One course credit.

401, 402. Command and Staff Emphasis is placed on developing planning and decision-making capabilities in the areas of military operations, logistics and administration. Meets two hours per week in each semester. *Prerequisite: open only to Advanced Course cadets.*

431. Contemporary Problems Seminar Seminars in selected areas emphasizing the interplay of multifarious considerations in exploring the environment of the contemporary American scene, and the position of the United States in

the world. Normally seminars will be offered in two major areas.

a. **Civil-Military Relations**—Examines the contemporary United States as it relates to the decision-making process affecting the U.S. military establishment. Emphasis is on the interdependence of military, social, legal, and ethical considerations in forming policies, as well as the interchange of influence, the military on society and society on the military. Normally, three problems are examined; these change by semester. Professors from other departments participate as discussion leaders. One course credit.

b. **Comparative National Security Policies**—Examines the national security policies and postures of the United States, Soviet Union, Peoples Republic of China, and selected other nations. Emphasis is placed on discovering (through independent study, discussion, and common readings) the features common to all major powers so their differences can be better understood. One course credit.



Music

Courses in music and faculty-directed ensembles are offered in the belief that the art of music is an essential aspect of a person's personal, social, and cultural evolution, being a manifestation and reflection of the deepest and most exalted thought and feeling throughout the ages. The art of music is considered in terms of its participation in the intellectual, aesthetic, and spiritual life of the human family. Instruction in music and membership in musical ensembles are offered both to students whose interest is of a general nature and to those who anticipate graduate or professional study. The offerings of the department are designed to enable students to follow a balanced and complementary program of study in four dimensions of music through the study of the literature of music and its cultural context, training in music theory and composition, individual instruction in most instruments, voice, and through participation in vocal and instrumental ensembles. The goal of the music program is to endow students and participants with lasting understanding and enjoyment of the riches of our musical heritage.

Recent graduates from the Department of Music are professional performers in symphonic ensembles, teaching on the secondary and college level, active in the fields of arts management and music publications and sales, and are music librarians.

Faculty:

Truman Bullard, Professor of Music, Ph.D., Eastman School of Music of University of Rochester. He teaches courses in Music History and Theory, conducts the Choir and Chamber Choir, and is a bassoonist and pianist. His special courses are in Baroque and Contemporary Music, and his research interests are Russian music and culture and American jazz.

J. Forrest Posey, Associate Professor of Music. M.A., Harvard University. He offers courses in the History and Theory of Music, in Composition, and in the performance practice of Medieval and Renaissance music. He conducts the *Collegium Musicum* in performance of early

music, plays the lute, recorder, cornetto, and krumhorn, and offers instruction in several early instruments. He is also a maker of such instruments. His research interests are in early music and its performance practice.

Frederick Petty, Associate Professor of Music. Chairman. Ph.D., Yale University. He teaches courses in Music History with specialization in opera and music of the Classic and Romantic Eras. He conducts the College-Community Orchestra, the Wind Ensemble, Brass Ensemble, and plays the French horn. He is an active scholar in the field of 18th century Italian opera and is the music director of the Harrisburg Civic Opera, and is Music Director for the Harrisburg Civic Opera.

Pong-Hi Park, Instructor in Piano. M.A., Peabody Conservatory of Music. She teaches piano and is a highly acclaimed concert pianist. She performs frequently as soloist, with orchestra, and in chamber ensembles in major cities and colleges.

Brenda Smith, Instructor in Voice. M.M., Westminster Choir College. She teaches studio voice, specializing in artsong and oratono as well as operatic repertoire. She performs frequently in solo recitals and oratono performances in the United States, West Germany and Switzerland. She maintains a special interest in German music and literature as demonstrated in scholarly writings and translations.

Beth Bullard, Director of Chamber Music and Instructor in Music. M.A., Harvard University. She teaches Baroque and modern flute, is the director of the Wednesday Noonday Concert Program, and coaches the Woodwind Quintet and other ensembles. Her research interests include Renaissance studies, the history of musical instruments, Baroque performance practice, and Indian music.

Anita Brandon, Part-time Instructor in Applied Music. M.M., University of Arizona. She teaches in oboe, clarinet, saxophone, and bassoon. She plays the oboe as the first chair with the Harrisburg and York Symphony Orchestras.



June Shomaker, Part-time Instructor in Applied Music. B.M., Washington University. She teaches cello and is a member of the Harrisburg Symphony Orchestra. She also has offered solo performances and has participated in chamber ensembles.

John Eaken, Part-time Instructor in Applied Music. M.M., Temple University. He offers instruction in the concert violin. He appears each year with major orchestras and in solo recitals and is the winner of several solo competitions and awards.

John W. Jones, Part-time Instructor in Applied Music and Director of the Jazz Ensemble. M.Ed., Towson State University. He teaches trombone and offers courses in jazz improvisation and composition.

Courses:

100. The Art of Music An introductory course intended for those students with little or no previous knowledge of music. Representative works from all periods and styles are studied in such a way as to emphasize the acquisition of permanent listening skills. *This course fulfills the distribution requirement for humanities (arts), but does not count toward the major.*

101, 102. History of Music An introductory course in music designed to train students in intelligent listening through a chronological discussion and analysis of selected representative works from plainsong through contemporary music.

103. 20th Century Music A survey of the major trends in music during the 20th century. *Prerequisite: Music 101 or 102 or permission of the instructor.*

104. History of Opera A survey of operatic literature from its inception to the present. *Prerequisite: Music 101 or 102 or permission of the instructor.*

105. Instrumental Music A discussion of selected topics in instrumental music, e.g., symphonic literature, chamber music, and keyboard literature. The content of the course will be altered from year to year in order to provide a diversity of subject matter. *Prerequisite: Music 101 or 102 or permission of the instructor.*

106. Vocal Music A discussion of selected topics in vocal music, e.g., choral literature and history of the art song. The content of the course will be altered from year to year in order to provide a diversity of subject matter. *Prerequisite: Music 101 or 102 or permission of the instructor.*

107. Biographical Studies A study of the life and works of a major composer, e.g., Bach, Beethoven, Mozart, or Bartok. The content of the course will be altered from year to year in order to provide a diversity of subject matter. *Prerequisite: Music 101 or 102 or permission of the instructor.*

108. American Jazz A study of the roots of jazz in social, cultural and artistic dimensions followed by a chronological survey of the evolution of jazz styles from the late 19th century to the present. *Prerequisite: Music 101 or 102 or permission of the instructor.*

109. Music of India A study of the basic principles and cultural context of Indian classical music, a system that has inspired jazz, rock, and classical musicians since the 1950s. The music of several other cultures will be touched upon as well. This course satisfies the comparative civilizations requirement. *Prerequisite: Music 100 or 101 or 102 or previous applied music experience or permission of the instructor.*

113-114. Applied Music Instruction 1 Open to all students who demonstrate by audition some

acquaintance with musical notation, and who should continue to study instrument or voice at the basic level. One-half or one course each semester. *Placement by audition. Does not fulfill distribution requirements.*

125, 126. Theory of Music I An introduction to the basic materials of music by means of discussion, analysis, and written exercises, complemented by intensive drill in sight singing, ear training, and keyboard harmony. Students are acquainted with some characteristic means of organizing these materials through firsthand contact with simple problems in melodic, contrapuntal, and harmonic techniques. *Prerequisite: permission of the instructor.*

213, 214. Applied Music Instruction II Open to students who demonstrate by audition a basic technique, and who should continue instruction on the intermediate level. May be repeated for credit with the permission of the instructor. One-half or one course each semester. *Placement by audition. Does not fulfill distribution requirements.*

245, 246. Theory of Music II Introduction to the basic materials of music continued. Evolution of chromatic harmony in the 19th century and selected techniques in 20th century music. Increased emphasis is placed upon stylistic and critical analysis. *Prerequisite: Music 126.*

313, 314. Applied Music Instruction III Open to students who demonstrate by audition a fully developed technical skill and who should continue study on the advanced level. May be repeated for credit with the permission of the instructor. One-half or one course each semester. *Placement by audition. Does not fulfill distribution requirements.*

351. Seminar in Medieval and Renaissance Music Study of the principal styles and forms of music from plainsong to ca. 1600. *Offered every other year. Prerequisite: 126.*

352. Seminar in Baroque Music Study of the principal styles and forms of music from 1600 to 1750. *Offered every other year. Prerequisite: 126.*

353. Seminar in Classic and Romantic Music Study of the principal styles and forms of music from ca. 1750 to ca. 1900. *Offered every other year. Prerequisite: 126.*

354. Seminar in 20th Century Music Study of the principal styles and forms of music from ca. 1900 to the present. *Offered every other year. Prerequisite: 126.*

413-414. Repertory and Performance The purpose of this course is to acquaint the advanced student with a broad selection of the repertory for his voice or instrument, and to prepare him to perform a program in spring semester which demonstrates his understanding of several musical periods and styles. *Prerequisite: Music 101 and 102, Music 313 and 314. Open to seniors with the permission of the music department upon recommendation of the instructor.*

495, 496. Senior Seminar Studies in composition, music history, and advanced theory, conducted through regular conferences and assigned writing. Open to seniors majoring in music who have demonstrated their ability to pursue independent research in at least two courses from this group: 351, 352, 353, 354. *Prerequisite: Permission of the chairman of the department.*

College Choir A mixed choir open through audition to everyone in the college community. Several major choral works are performed each year at Dickinson with the College-Community Orchestra. *Permission of the director required.*

Chamber Choir This select ensemble of 28 voices drawn from the College Choir performs regularly in worship services at the college and travels widely to present secular and sacred music in major cities and colleges. *Permission of the director required.*

Collegium Musicum A small, select group of singers and instrumentalists drawn from the student body, faculty, and community for the purpose of studying and performing masterpieces composed for small ensembles. *Permission of the director required.*

College-Community Orchestra Open to students and faculty at the college and to instrumentalists from the surrounding area interested in the performance and study of the best in orchestral literature. *Permission of the director required.*

Dickinson Jazz Ensemble 18 to 20 musicians perform classic and contemporary jazz in this group in concerts and for social occasions. *Membership is by competitive audition.*

Major: ten courses, including 101, 102, 125, 126, 245, 246, and 351, 352, 353, 354. Music 413 or 414 or an independent study can, if approved by the department, be substituted for one course numbered above 350.

Minor: six courses, including 101, 102, 125, 126 and two additional courses from the following group: 245, 246, 351, 352, 353, and 354.

Note: Students planning to major in music should complete 125-126 during their sophomore year. A knowledge of French and German is necessary for graduate study in music.

Philosophy

Courses in philosophy present ways of thinking about those fundamental questions which continue to puzzle us in spite of all our learning. What is it to be human? Can we justify our values? Is truth possible? Does history have or make any sense? What sort of society is truly just? Philosophers see questions like these cutting across the boundaries of science, art, politics, and religion, crucial to all these fields yet belonging to none of them, and demanding that we reflect on all our experiences and beliefs in order to put forward answers.

Because it poses serious questions about ideas we might otherwise take for granted, philosophy has always been central to liberal education. The philosophy program at Dickinson stresses a balanced approach to three main tasks: (1) understanding the sorts of questions philosophers ask; (2) critically evaluating the methods, ideas, and sorts of evidence that have gone into the attempts to answer these questions; and (3) making the transition from criticism to original thought, where the questions have become truly one's own. We stress analysis of primary sources and the ability to see philosophical issues in their proper historical and cultural contexts.

Recent graduates of the program have gone on to advanced studies in philosophy at such institutions as Harvard, University of Chicago, University of Texas, Vanderbilt, and Notre Dame. Among those graduating from 1965 to 1982, 31 of the 32 who applied were accepted in a philosophy program of their choice.

Because it couples rigor of thought with concern for all aspects of the human condition, the study of philosophy has always been regarded an excellent foundation for a life in public service, education, law, medicine, and any field requiring a creative but critical approach to problem-solving or policy-making.

Since philosophy touches on so many other fields of study, the department encourages double majors or other forms of interdepartmental work and strongly supports courses and programs which combine the perspectives of more than one discipline or which involve different

cultural or civilizational perspectives. Typically over half the department's majors combine their philosophical studies with a major in another field.

Faculty:

Cyril Dwiggins, Associate Professor of Philosophy. Chairman. Ph.D., Northwestern University. Trained in the ancient and medieval as well as the contemporary traditions, he teaches the history and interpretation of Western philosophy to the Renaissance and also specializes in recent continental thought, especially phenomenological aesthetics, and cultural hermeneutics. He has recently completed a major study of metaphorical language and is currently writing on ethos and ethics in business and public policy. Professor Dwiggins also teaches in The Program in Policy and Management Studies.

Susan M. Feldman, Assistant Professor of Philosophy. Ph.D., University of Rochester. Her interests include the history of modern philosophy, the problem of knowledge and skepticism, philosophy of science, and ethics, both "pure" and "applied" in such areas as the environment and the status of women.

Philip T. Grier, Associate Professor of Philosophy. Ph.D., University of Michigan. He teaches a variety of courses in the history of philosophy and in social and political thought. He is interested in both contemporary issues and in the history of such traditions as liberalism or Marxism, and is an expert on Hegelianism and Russian philosophy.

George Allan, Part-time Professor of Philosophy. Ph.D., Yale University. He is interested in how people act, individually or in groups, and what this tells us about what the world is and what it ought to be. He teaches ethics and topics in social philosophy, and has special concerns in American thought, existentialism, and Whitehead's process cosmology. Professor Allan's scholarship is in these areas and in matters related to higher education.

Contributing Faculty:

Associate Professor Krebs, (comparative civilizations)

The Program in Philosophy

111. Problems of Philosophy Introduction to philosophy through some of its central problems: in what sense we can be said to know anything or to be free, whether history has a goal, what things are truly worth doing or having. May be approached either by exploring each problem in turn or by analyzing the writings of several philosophers and seeing how different problems are dealt with in each.

112. Ethics Major theories in terms of which philosophers have tried to make sense of moral problems. The aims are to expand the student's understanding of ethical alternatives, to provide models and methods for thinking about moral dilemmas, and to help formulate and clarify one's own ethical position.

113. Introductory Topics in Philosophy Introduction to philosophy through the exploration of a specific topic or problem.

121. Logic Techniques of analyzing texts and arguments. The process of inquiry. Evidence and truth. Other topics may include deduction and induction, natural deductive systems, and reasoning in natural and artificial languages.

131. Introduction to Symbolic Logic Theory and practice in translating arguments into symbolic form and testing for validity by means of truth tables, natural deduction systems, and axiomatic systems. Propositional and predicate logics. Logic of relations. *Usually offered as a self-instructional tutorial.*

241. Ancient Philosophy The origins of Western philosophy in the emergence of individual mind as a modality distinct from collective consciousness. The Presocratics. Plato's myth of Logos. Aristotle's Logos of Nature. Individual and empire in Hellenistic thought. Neoplatonism and Plotinus. *Prerequisite: a previous course in philosophy or permission of the instructor.*

242. Medieval and Renaissance Philosophy Philosophy and the Fathers: the problematic of faith and reason. Universals and universities. The rediscovery of Aristotle. Aquinas. Scotus. Ockham and nominalism. Politics and mysticism in the Renaissance. *Prerequisite: a previous*

course in philosophy; or History 257; or permission of the instructor. Offered every other year.

243. Philosophy in the 17th and 18th Centuries Origins of the modern tradition in Western philosophy. Particular emphasis on the problems of method in thinking, the nature and scope of knowledge, the quest for certainty, and views on the nature of reality. *Prerequisite: a previous course in philosophy (Philosophy 241 recommended) or permission of the instructor.*

244. Philosophy in the 19th Century Hegel and Hegelianism. Attempts by thinkers such as Marx, Kierkegaard, and Nietzsche to transcend or abolish speculative philosophy as defined and exemplified in the Hegelian system. Darwin in his context. The end of mechanism. *Prerequisite: a previous course in philosophy (243 recommended) or permission of the instructor. Offered every other year.*

245. Philosophy in the United States Philosophies shaping and shaped by the beliefs and practices of the American peoples. Sometimes taught historically (Puritans, Federal period, transcendentalism, social Darwinists, pragmatism, contemporary philosophies); sometimes by focusing exclusively on pragmatism and its critics. *Prerequisite: a previous course in philosophy or American Studies 212 or permission of the instructor. Offered every other year.*

246. Asian Philosophies Characteristics and problems of thought outside the West. Methods of comparative philosophy. Close examination of works and movements within a major tradition (in different semesters: China, India, Japan, Buddhist schools). *Prerequisite: a previous course in philosophy or permission of the instructor.*

251. Philosophy of Religion What it means to examine the phenomenon of religion philosophically. Problems which come to light from such an examination, such as the nature of religious experience, the relationship of reason and religion, and the meaning of religious language. Emphasis on the variety of forms in which the phenomenon of religion manifests itself. *Prerequisite: a previous course in philosophy; or major standing in Anthropology, Sociology, or Religion;*

or permission of the instructor. Offered every other year.

252. Philosophy of Art What is a work of art? Inquiries into the nature of art and aesthetic experience and of the meaning of literature and the arts in one's own life and the life of a culture. Conversations with local and visiting artists on special problems. *Prerequisite: a previous course in philosophy; or major standing in a literature, Music, or Fine Arts; or permission of the instructor.*

253. Philosophy of Society Ways in which one's view of human nature, the human good, and the nature of justice interact in any coherent vision of the structure of a just society. *Prerequisite: a previous course in philosophy or major standing in any of the social sciences. Offered every other year.*

254. Philosophy of Science Logics and methods of scientific thinking. The impact of science on the contemporary world. Conceptions of theories and of observable facts. The rationality of science and of choice among theories. General questions about knowledge, values, and ultimate beliefs as they relate to the scientific enterprise. *Prerequisite: a previous course in philosophy of major standing in mathematics or any of the natural sciences. Offered every other year.*

255. Philosophy of Law Fundamental problems such as the nature of law, the justification of legal authority, the relationship between legality and morality, the nature of judicial decision-making, theories of punishment, and issues involved in civil disobedience. *Prerequisite: a previous course in philosophy or major standing in Political Science. Offered every other year.*

261. Intermediate Topics in Philosophy Examination of specific problem, author, text or movement. *Prerequisite: a previous course in philosophy, major standing in a field relevant to the subject matter, or permission of the instructor.*

371. Philosophy in the 20th Century Representative texts and movements that have given philosophy in this century its characteristic preoccupation with language. The Anglo-American (analytical) and continental (phenomenological-

critical) traditions. The present situation. *Prerequisite: two previous courses in philosophy; Philosophy 243 and 244 strongly recommended. Offered every other year.*

381. Philosophy of Language An examination of the nature of language, including such problems as meaning, reference, intentionality, and interpretation. *Prerequisite: two previous courses in philosophy or permission of the instructor. Offered every other year.*

382. Theories of Knowledge Conceptions of knowledge and its limits, and of the nature and possibility of truth. *Prerequisite: two previous courses in philosophy or permission of the instructor. Offered every other year.*

383. Theories of the Real Conceptions of what is ultimately real, together with discussions of the nature and limitations of such conceptions. *Prerequisite: two previous courses in philosophy or permission of the instructor. Offered every other year.*

384. Theories of Value Examination of the nature and logic of values and evaluations. Sources, scope, and rationality of values. Connections between values and facts. *Prerequisite: two previous courses in philosophy or permission of the instructor. Offered every other year.*

385. Theories of History Speculative philosophies of history which have significantly influenced the shape of Western thought; history of the idea of history. Other topics include the problem of historical explanation, and the notions of historical cause and progress. *Prerequisite: two previous courses in philosophy or permission of the instructor. Offered every other year.*

391. Seminar Ordinarily limited to majors or others with a strong background in philosophy. Recent topics have included: Plato's Republic; Merleau-Ponty; The Idea of Happiness East and West; Kant's First Critique. *Prerequisite: permission of the instructor.*

Senior Colloquium. Informal colloquium bringing the department faculty and senior majors together for discussions of contemporary issues in the field, usually based on selections from recent work.

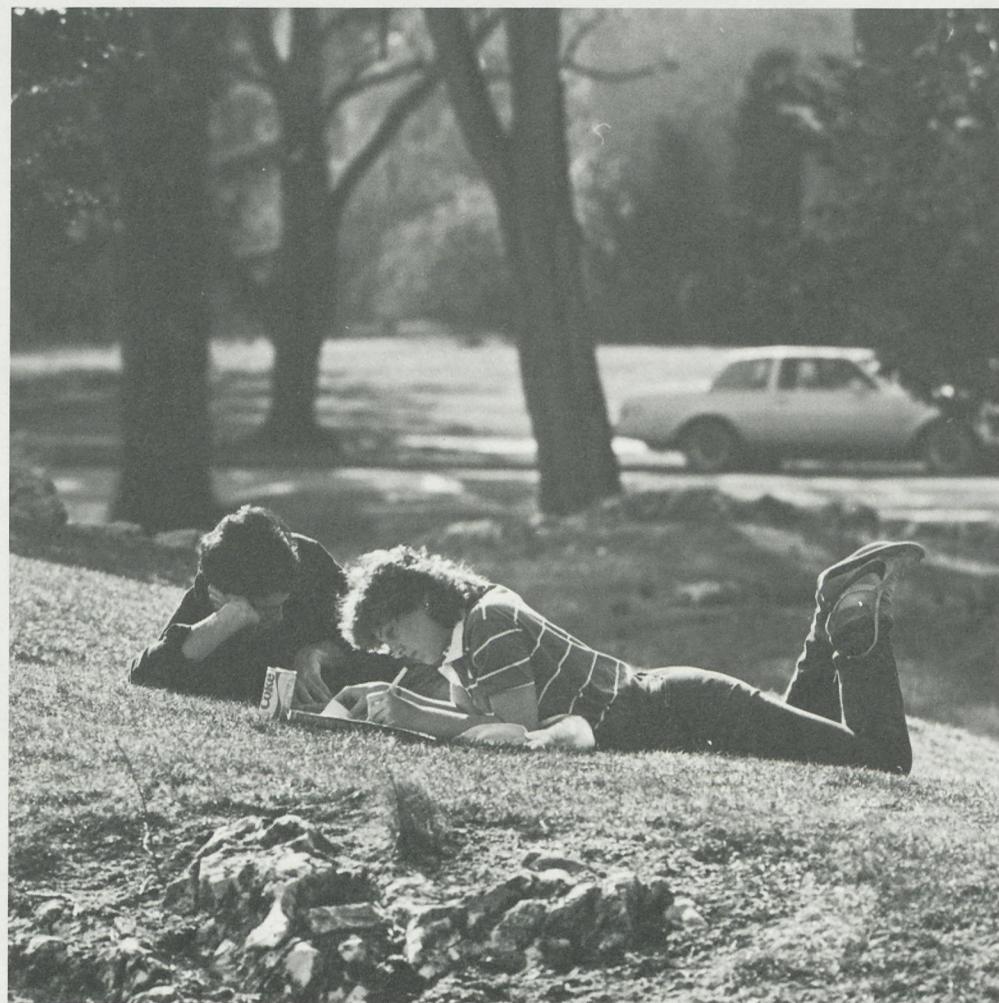
Symposium. Discussions of papers or topics of mutual interest, led by faculty members, students, or visiting speakers. *Open to majors and to others by invitation. Non-Credit.*

Major: ten courses, including 121 or 131, 241, 243, *either 371 or 381*, and six other courses chosen with the advice of the department, at least two of which must be at the 300-level, and only one of which may be taken as independent study. Majors should complete the logic requirement (121 or 131) as soon as possible, and should take 241 and 243 early in the major. For any given term the chairman may designate courses in other programs which may be

counted toward the major in philosophy; express permission of the adviser is required in each case.

Declared majors have the right but not the obligation to participate with vote in deciding and implementing departmental policy. Prior to the term in which they exercise this option, majors must have declared their intention to do so; during that term they must attend department meetings and assist in departmental business.

Minor: six courses chosen *with the advice of the department.*



Physical Education

All Dickinson College students must satisfactorily complete three semesters (six units) of physical education. Five units are to include physical education activity units, and the sixth unit is to be a department-offered theory course.*

Transfer students with junior standing and with no previous physical education credit are required to take only two semesters (four units — three activity units and one theory course*) of physical education.

Students are expected to have completed the physical education requirement by the end of the first semester of their senior year.

A student enrolled in the physical education program may receive no more than two physical education units for the same activity. A maximum of three physical activity units may be satisfied by participation in intercollegiate athletics, sport clubs, and/or advanced work in military science. Intercollegiate credit is limited to a total of two units for a single sport. One additional unit may be received for involvement in another sport or sport club. Physical education activity units for military science may be earned for summer camp (two units) and for completion of both junior and senior year levels of military science leadership laboratory (one unit).

If there is a medical reason why a student cannot participate in the physical education activity program, the student must submit to the department chairman a medical statement from a physician detailing the extent of the medical problem. Any student who has a medical problem should register under the medical classification category. *Effective beginning with the Class of 1985

Faculty:

Lee Ann Wagner, Physical Educator, Associate Director of Recreational Sports, Assistant Coach of Field Hockey and Lacrosse. B.S., Pennsylvania State University. Her interests include all racquet sports, swimming, theories of fitness and exercise, and the concept and practice of play.

Joseph G. DuCharme, Associate Professor of Physical Education, Coach of Men's Cross Country and Golf. M.A., New York University. His scholarly interests include all phases of physical education.

Kathleen W. Barber, Physical Educator, Head Coach of Women's Field Hockey, Head Coach of Women's Tennis. A.B., Syracuse University. Her teaching includes all levels of tennis, badminton, and volleyball. She has researched the history of women's field hockey at Dickinson College and plans to examine the changing role of women in sports.

W.J. Gobrecht, Associate Professor of Physical Education, Head Lacrosse Coach. A.M., Duke University. Sports data concerning Dickinson College is a consuming passion of Mr. Gobrecht. Currently he is working on a history of basketball at the College.

William J. Nickey, Physical Educator, Head Coach of Soccer, Field Event Coach of Track. M.Ed., West Chester State College. He teaches a wide variety of activities, specializing in archery, gymnastics, physical fitness, and skiing. He has also been trained by United States Soccer Federation.

David L. Watkins, Physical Educator. Chairman. Director of Athletics, D.Ed., The Pennsylvania State University. His special interests include the teaching of the Psychology of Sport and Physical Activity in the department of psychology and an interdisciplinary course in Sport, Myth, and Religion. His major physical activity interests include running, cycling, squash racquets, and golf.

Joseph E. McEvoy, Physical Educator, Aquatics Director, Swimming and Diving Coach, D.P.E., Springfield College. His administrative and teaching duties encompass the entire aquatics program. He coaches both the men's and women's swimming and diving teams. His research interests are focused on "fitness and swimming" as a lifetime form of exercise.

Raymond T. Erney, Physical Educator, Head Football Coach, Head Baseball Coach. M.Ed., Shippensburg State College. His recreational interests include golf, tennis, boating, and skiing.

Elaine M. Goldband, Physical Educator, Head Coach of Volleyball and Facilities Manager. M.A., Ohio State University. She specializes in team and racquet sports. Other interests include comparative physical education and international sport and sports law.

Donald J. Nichter, Physical Educator, Director of Recreational Sports, Wellness Programming Coordinator. M.S., Pennsylvania State University. In addition to administering the intramural and sport club programs, his professional interests include fitness programming and a scholarly study of the impact of exercise on physical and psychological health. His major teaching areas include running, strength training, and racquetball.

Robert H. Shank, Physical Educator, Head Athletic Trainer, Coordinator of Fitness Programs. M.Ed., University of Virginia. His major professional interests involve the application of sports medicine and exercise physiology to the areas of prevention, emergency care, and rehabilitation of injuries associated with athletic activities. His other interests include the delivery of emergency medical services and the instruction of emergency first aid and cardiopulmonary resuscitation.

Judith M. Yorio, Physical Educator, Assistant Chairwoman of the Department of Physical Education, Assistant Director of Athletics. Head Coach of Women's Basketball. M.S., Southern Connecticut State College. Her primary interests center around coaching and sports medicine. She has research in progress concerning musical adaptation to skill learning in team sports.

Physical Education Activities

1. Intro. to Aerobic Activities
2. Aerobic Dance
3. Archery
4. Badminton
5. Basketball
6. Bowling
7. Boxing
8. Cycling
9. Folk Dancing
10. Ballet
11. Modern Dance
12. Fencing
13. Flag Football
14. Golf
15. Handball
16. Horseback Riding
17. Ice Skating
18. Karate & Self Defense
19. Tai Ji Quan
20. Lacrosse
21. Outing Activities
22. Racquetball
23. Running & Jogging
24. Skiing (Downhill)
25. Skiing (X-country)
26. Slimnastics
27. Jazznastics
28. Soccer
29. Softball
30. Squash Racquets
31. Swimming
32. Fitness Swimming
33. Springboard Diving
34. Canoeing
35. Water Polo
36. Adv. Life Saving
37. Life Saving Review
38. Snorkle Diving
39. Scuba Diving
40. Synchronized Swimming
41. Tennis
42. Volleyball
43. Weight Training
44. Wrestling
45. Yoga
46. Self-Paced Activities
47. Medical Classification

Physical Education Theory Courses

The department offers the following theory courses which provide students with an option in meeting their theory course requirement.

Healthful Living. The topics of nutrition, stress management, drugs and alcohol, aerobic fitness, and human sexuality are some of the areas studied in this offering.

Exercise and Fitness. This course's content includes a study of the physiological and psychological benefits derived from physical activity. Programs for the development of strength and muscular/cardiorespiratory endurance will be studied.

Prevention and Care. This course's content will include prevention, emergency care, treatment, and rehabilitation of athletic injuries. Laboratory experience in taping, wrapping, and treatment is required. Scientific bases of conditioning, training as well as the psychogenic factors involved in athletics and sports medicine will be studied.

Cardiopulmonary Resuscitation/Standard First Aid. Students will be taught based upon the guidelines established by the American National Red Cross in their Modular CPR Course. Class activities include films, assigned readings, demonstrations, and skill practice sessions coordinated with the workbook lessons.

Water Safety Instruction. This course is designed as a training program to prepare students to become water safety instructors. The students are exposed to a variety of teaching methods with an opportunity to develop teaching skills and style.

Volleyball Officiating. This course deals with the understanding and interpretation of rules pertaining to the sport of volleyball. It also includes actual officiating techniques during intramurals and intercollegiate practices.

Nutrition. The main emphasis of this course deals with weight control, diets, nutritional needs of various age groups, and the monitoring of current life style associated with nutrition.



Physics and Astronomy

The program in physics and astronomy serves students who desire intensive training in physical science, those who will use physics in allied fields such as medicine, and those who are interested in the historical and cultural aspects of physics and astronomy. It aims to give the student an insight into the fundamental laws of nature and some facility in the mathematical language in which they are expressed. Students may major in physics as a preparation for further professional study in physics or engineering, or for careers in which a background in physical science is valuable.

The course program includes several introductory courses, with and without laboratory, to satisfy the needs of students with a variety of aims. The Physics 131, 132 course sequence is intended for those students who wish to continue further study in the analytical sciences. Physics 111, 112 includes atomic and nuclear physics and is primarily for life-science and pre-medical students and for non-science majors electing physics to satisfy the one-year laboratory science distribution requirement. Physics 109, 110 is recommended for students seeking a cultural, non-mathematical approach to astronomy. The physics major may take advantage of the combination of a strong and diverse academic program, modern laboratory equipment, low student/faculty ratio and close personal contact with faculty involved in research. In addition to normal course work, the department encourages physics majors to pursue independent study or research with the guidance of a faculty advisor. Students have recently completed projects in acoustics, astrophysics, health physics, meteorology, microcomputer based instrumentation, nuclear radiation physics, and plasma physics. Tome building houses a physics library, machine shop, an electronics repair shop, a well-equipped planetarium, and much modern equipment supporting the various research project areas.

Some of our recent majors now have positions in physics research, high school and college teaching, electronics, optics, computer programming, planetarium directing, environmental resources management, urban planning, and systems engineering. Others are completing graduate work in physics or allied fields such as biophysics, metallurgy, acoustics, meteorology, astronomy, nuclear engineering, health physics, medicine, and law.

Faculty:

Kenneth L. Laws, Professor of Physics. Ph.D., Bryn Mawr College. Although his early research experience was in solid state physics, he has recently found intriguing applications of physics to dance in the active field of biomechanics. Recent teaching interests include meteorology and electronics. (On leave spring 1985)

Priscilla W. Laws, Professor of Physics. Ph.D., Bryn Mawr College. Since receiving her doctorate in nuclear physics her interests have expanded to include radiation dosimetry, health effects of diagnostic x-rays, environmental science, and laboratory applications of microcomputers.

Neil S. Wolf, Professor of Physics. Chairman. Ph.D., Stevens Institute of Technology. The plasma physics of fusion reactors is his primary research interest. Students at Dickinson have helped to build several large experiments which have been used to study waves and instabilities in highly ionized gases. Besides teaching the General Physics course, his courses include plasma physics research, electricity and magnetism, mechanics, statistical physics and one on the social and scientific background nuclear power and the nuclear arms race.

John W. Luetzelschwab, Professor of Physics. Ph.D., Washington University. His background is nuclear physics although now his basic research interest is in environmental radioactivity and health physics. His other interests are concerned with energy production, use, and conservation, particularly energy conservation in the home.

T. Scott Smith, Associate Professor of Physics, Director Bonisteel Planetarium. Ph.D., University of Maryland. Although his major areas of research and teaching have been theoretical astronomy and astrophysics, he also has considerable interest in the history of science and science/society interactions past (megaliths/archeoastronomy), present (environmental crisis), and future (science fiction) both in the Western and non-Western traditions.

Robert J. Boyle, Assistant Professor of Physics and Astronomy. Ph.D. Yale University. Though an observational astronomer by training he has recently developed an interest in laboratory astrophysics. His major research interests involve a variety of topics in extragalactic astronomy, studies of old stellar systems in our own Milky Way Galaxy and laboratory spectroscopy of molecules of astrophysical interest using a tunable diode laser. His teaching activities include introductory astronomy, mathematical physics and a variety of other topics in physics and astrophysics.

Seamus Lagan, Instructor in Physics. M.S., Lehigh University. His current research is focused on kinetic theory polyatomic gases including the effects of reaction collisions between atomic and diatomic molecules.

Courses in Astronomy:

105. Life in the Universe A comprehensive study of the astronomical possibilities of extra-terrestrial life including a brief survey of the universe, conditions necessary for life, and astronomical observations (including UFO's) which support or deny the premise that life in the universe is a common phenomenon. *Offered in Summer School only.*

107,108. Astronomy Similar to 109,110 described below, but without laboratory work. *107 and 108 will not count toward major requirements in physics and will not satisfy the one-year laboratory science distribution requirement. Either course will, however, count as the third required course in Distribution III. Please read Note.*

109,110. **Astronomy** Introduction to the modern concepts of the physical nature of the astronomical universe. First semester: historical development of astronomical ideas and origin and evolution of the solar system. Second semester: cosmology and the structure and evolution of the stars and galaxies. A terminal laboratory course for non-science students, three hours classroom, one two-hour laboratory per week. *This course will not count toward major requirements in physics, but will satisfy the one year science distribution requirement. Please read Note.*

206. Topics in Astronomy Physical and mathematical aspects of astronomy. Topics will be selected from the following: comparative planetology, stellar evolution, cosmology or observational astronomy (using the 14-inch Celestron telescope or the solar heliostat). *Prerequisite: 112 or 132; Mathematics 162.*

Courses in Physics:

102. Meteorology The physical basis of modern meteorology: characteristics of atmospheric motions, clouds, and weather systems; methods of weather observation and forecasting; meteorological aspects of air pollution. *Satisfies the one-course distribution requirement in Division III, but may not count toward a physics major. (See also Physics 202.)*

***111, 112. Elementary Physics** Introductory, non-calculus physics, principally for B.A., life science and pre-med students. Topics include mechanics, thermodynamics, acoustics, optics, electricity, magnetism and modern physics. Three hours classroom and one two-hour laboratory a week. *Please read Note.*

***131, 132. General Physics** An introduction to classical mechanics, heat and waves in the first semester; emphasizes particle and rotational motion, the conservation laws of energy and momentum, and the laws of thermodynamics. Second semester: optics, electricity, circuit theory, magnetism and the properties of matter. Introduces and uses elementary calculus. Recommended for physical science and mathematics majors; a more analytical study than Physics

111, 112. Three hours classroom and one three-hour laboratory a week. *Prerequisite: Mathematics 161, 162 or concurrent registration therein. Please read Note.*

202. Meteorology The physical basis of modern meteorology: characteristics of atmospheric motions, clouds, and weather systems; methods of weather observation and forecasting; meteorological aspects of air pollution. Some of the basic concepts and techniques of introductory physics will be used to solve problems in meteorology. This course may count toward a physics major. *Prerequisite: Physics 111 or 131. (See also Physics 102).*

231. Modern Physics Special relativity, atomic, nuclear and solid state physics. Topics include atomic structure and its relationship to the quantum nature of light and matter, nuclear structure and interactions, and elementary particles. *Prerequisite: 112 or 132.*

232. The Physics of Waves A study of the motion of waves and vibrating systems. Resonance phenomena, coupled oscillation, superposition, and interference. Wave theory will be used to describe various phenomena in fluids, acoustics, optics, mechanics, and modern physics. *Prerequisite: Physics 112 or 132; Mathematics 162.*

255. Modern Electronics Circuit design and analysis; electronic devices. A study of diodes, transistors, integrated circuits and other solid state components in dc, ac, amplifier, and digital circuits. The laboratory utilizes modern electronic equipment. Some machine shop experience is included. Class and laboratory work totals seven hours per week. *Prerequisite: 112 or 132.*

256. Microcomputer Control A practical introduction to basic digital electronic design and analog to digital conversion techniques as well as microcomputer architecture and assembler programming. Topics are integrated in a final project involving the development of software and electronic circuits for computer based control functions. Class and laboratory work totals six hours per week. *Prerequisite: 255.*

***311. Analytical Mechanics and Wave Motion** Statics and dynamics: motion of a particle in one, two and three dimensions; systems of particles, rigid body motion, moving coordinate systems, wave propagation, fluid flow and Lagrange's equations. *Prerequisite: 232; Mathematics 262, or permission of the instructor.*

***331, 332. Electricity and Magnetism** Principles and applications of electricity and magnetism using vector calculus. First semester: basic properties of the electromagnetic field, interaction of the field with charges and currents; dielectric and magnetic media. Second semester: solutions of Maxwell's equations in matter and free space, reflection and refraction of waves, guided waves; topics in plasma physics and special relativity. Laboratory work as appropriate in 332. *Prerequisite: 232; Mathematics 262.*

335. Modern Physics Laboratory Laboratory experiments in atomic and nuclear physics, emphasizing alpha, beta, and gamma particle detection techniques, gamma spectrometry, and half-life measurements; resonance and wave phenomena in acoustics, modern optics, and holography, using lasers, microwaves, spectroscopy, and photography. Six hours laboratory per week. *Prerequisites: 231 and 232.*

***341, 342. Mathematical Physics** Analytical and numerical techniques for the mathematical analysis of physical phenomena. Topics include advanced vector analysis and matrix methods, techniques for solving ordinary and partial differential equations used in physics, the solution of boundary value problems, the properties and use of functions of a complex variable, Green's functions, Legendre Polynomials and Bessel Functions. *Prerequisite: 132; Mathematics 262.*

361. Topics in Modern Physics Topics selected from atomic, nuclear, plasma, or solid state physics; or modern optics and acoustics. *Prerequisite: 231; Mathematics 262.*

362. Thermodynamics and Statistical Mechanics Classical and quantum statistical mechanics and thermodynamics with applications to the solid state and other physical systems. *Prerequisite: 232, Mathematics 262, or permission of the instructor.*

371, 372. **Health Physics** Basics of health physics. Topics include nuclear binding energy, nuclear models, radioactive decay, interaction of radiation with matter, and radiation dose measurement; biological effects of radiation; instrumentation; internal and external dose calculations; licensing; waste disposal; and radioactive monitoring. *Prerequisite: 321. (Note: The first course is a prerequisite for the second.)*

375, 376. **Nuclear and Health Physics Laboratory** Basics of nuclear and health physics instrumentation. Topics include pulse counting, use of multichannel analyzer, alpha, beta, and gamma detection, TLD dose measurements, counting statistics, neutron activation, environmental radiation detection, decontamination, and shielding. *One half course each. Prerequisite: Permission of the instructor.*



392. Physics Seminar Student reports and discussions on several topics in contemporary physics. Emphasis is on the development of bibliographic skill, seminar presentation and report-writing techniques, as well as increasing the breadth and depth of the student's knowledge of recent research. *Prerequisite: 232 and permission of the instructor. One-half course.*

431. Quantum Mechanics Basic postulates of quantum mechanics; the Schrodinger and Heisenberg formulations. The wave equation; potential wells and barriers; the harmonic oscillator; the hydrogen atom; perturbation theory; and other topics. *Prerequisites: 231, 311, 341.*

432. Topics in Theoretical Physics Topics to be selected from the following areas: advanced dynamics, special and general relativity, applications of quantum mechanics to atomic, nuclear, and condensed matter physics. *Prerequisite: 311, 341, or permission of the instructor.*

461. Problems in Contemporary Physics Integration of theoretical principles with research in the conduct of team research in contemporary physics. Emphasis on research techniques including oral and written communication. Field trips to graduate school, industrial and government research laboratories to explore career possibilities.

Health Physics

Health Physics is the field of study concerned with radiological safety in nuclear power plants, hospital x-ray and radiation facilities, and any institution that uses radioactive material for research.

The Dickinson physics and astronomy department offers the following courses and laboratories in Health Physics: 371, 372, 375, 376 usually. These courses are self-directed study programs, not lecture courses. The student completes weekly reading and problem assignments and meets once a week with the advising faculty member to discuss the week's assignments and take the assigned examinations.

Three other courses (one-half course credit each) are available on Environmental Health Physics, Medical Health Physics, and Nuclear Power Plant Health Physics. A student can also do independent research and possibly have an internship in health physics at a nearby nuclear facility.

Note: Because of similarity in course content, students will not receive graduation credit for both of the following pairs of courses: 102 and 202, or 107 and 109, or 108 and 110, or 111 and 131, or 112 and 132.

Major: Those planning to major in physics, in consultation with the department, will devise a program tailored to their preparation, interests, and goals. Each student is expected to acquire a basic knowledge of classical and modern physics, and mathematical physics. Courses normally required of the major include: 231, 232, 311, 331, 341, 461, and an additional laboratory course. Students pursuing special programs of study within the department may replace some of these courses, with approval of the chairman, but a minimum of nine physics courses is required. Possible programs of study include: Astrophysics, Biophysics, Chemical Physics, Geophysics, Health Physics, Mathematical Physics, Meteorology, Preengineering, Secondary School Teaching.

Minor: six courses including 111, 112 (or 131, 132), 231, and three additional courses in the department.

Policy and Management Studies

Steering Committee: Professors Booth (religion); Dwiggins (philosophy); Hickok (political science)

Policy and Management Studies is an interdisciplinary approach to the study of policy making in both the public and private sectors. The program is designed to develop the skills needed to make policy decisions and a clear and critical sense of the ethical and political values which policies promote. Broadly, the concerns of the program are reflected in such questions as "What is the public interest?," "What are the social responsibilities of private corporations?," and "To what extent are private and public, personal and social, interests in conflict or in harmony?"

Students will study issues and institutions in the areas of social policy, corporate policy, resource management, or international political and economic relations, examining them in the overlap of four arenas: public, private, domestic, and international. Because most contemporary policy questions cross the permeable boundaries between these arenas, possible responses will be explored through interdisciplinary perspectives and techniques, ranging from anthropology to religion. In doing so, students and faculty will examine constantly the interactions of socio-economic and political forces and the ethical and cultural contexts that condition making, implementing, and criticizing policy decisions.

Courses in the program challenge students to consider the full implications of actual or proposed policy decisions and in this way help them to understand the various sorts and levels of commitment that shape our society. In learning how to analyze problems and manage resources, students will become sensitive to the limits of rationality, to constraints in the cultural and physical environments, and to the complex relationships that connect those environments.

401. Seminar in Program Policy and Management Studies A senior seminar designed as a culmination which integrates previous coursework and the internship experience. Small group problem solving, oral and written presentations; participation by faculty from various disciplines. *Prerequisite: Open only to senior majors.*

Major: 13 courses.

Acceptance as a major requires completion of the prerequisites and foundations course with an average of 2.0 or better and approval by the Advisory Committee.

Prerequisite Courses (two courses) — Political Science 120 and Economics 111.

Foundation Course — A two-credit, team taught course offered every Spring beginning Spring 1983.

Substantive Concentration (three courses in one of the following areas agreed upon by the director and student candidate).

1. Issues in the Public Sector: e.g., health, education, welfare, income security, transportation, civil rights, minorities, criminal justice, mass media.
2. Issues in the Private Sector: e.g., business organization, management, labor.
3. Resource Management: e.g., energy, environment, population, oceans, science and technology.
4. International Affairs: e.g., trade, finance, development, industrialization, multinational corporations, foreign and defense policy, comparative public policy.

Structural Context Courses (1) — Courses offered in various departments which emphasize the organizational and structural processes through which decisions are made.

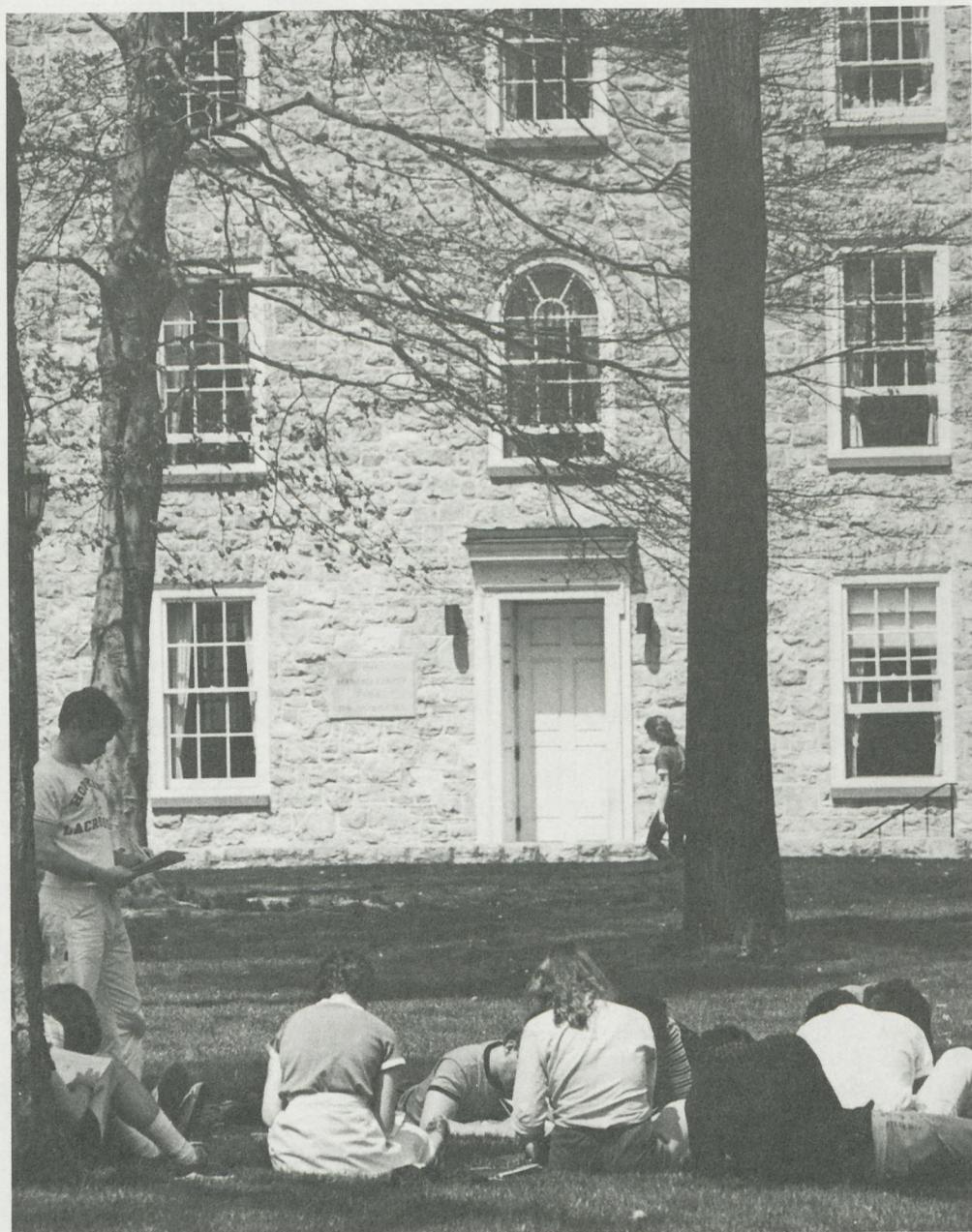
Methods Courses (1) — Courses are recommended in quantitative methods, theory, and behavioral processes.

Cultural Context Courses (2) — Courses in the humanities that are appropriate to the student's program.

Internship (one course credit) — An internship experience which will be related to the student's substantive concentration.

Seminar (one course).

Minor: 8 credits — Prerequisite (2); Foundations (2); Substantive Concentration (1); Cultural Context (1); Structural Context (1); Methods (1). Students must declare a minor.



Political Science

Political science analyzes political systems, actors, and processes on the local, national, and world levels. In doing so the department seeks to expose students to a variety of methods—theoretical, empirical, historical, normative—in the subfields of American politics, political theory, comparative politics, and international relations and to faculty who represent a broad spectrum of philosophical perspectives. Although political science is one of the social sciences, our faculty have skills and interests that range from humanistic concern for values to mathematical tools for quantitative research. Some of these interests are reflected in their activities outside the department in such programs as International Studies, Latin American Studies, Comparative Civilizations, Western Social and Political Thought, the Bologna Program, the Harrisburg Urban Semester, the Washington Semester, and Policy and Management Studies.

Departmental goals for faculty and students include the mastery of facts, the examination of values, the sharpening of analytical skills, and the formulation of considered views. Whether they go on to become lawyers, business executives, local or national civil servants, journalists, or dentists, our graduates are likely to be more responsible students and practitioners of the science and art of politics.

Faculty:

Bruce R. Andrews, Professor of Political Science. Ph.D., Syracuse University. He teaches American national government, with special emphasis on elections and voting behavior, political parties, the role of public opinion, and mass media influences. His current research interests include comparative aggregate electoral data patterns characterizing presidential elections from 1968 to 1980 and mass media effects on the formation of public attitudes about political candidates.

K. Robert Nilsson, Professor of Political Science. Ph.D., Columbia University. Comparative politics, especially Western Europe, and international law and relations are his main fields

of specialization. Italian politics has been a continuing area of scholarship with neo-corporatism and the Italian Socialist Part recent research interests. He is an Adjunct Senior Research Scholar at the Institute on Western Europe of Columbia University.

George Friedman, Associate Professor of Political Science. Chairman. Ph.D., Cornell University. His teaching includes political philosophy with a special emphasis on modern political thought. His recent research has been on the development of Marxism. Additional research areas: Jewish political thought, politics and religion, existentialism.

J. Mark Ruhl, Associate Professor of Political Science. Ph.D., Syracuse University. He specializes in comparative politics and modernization theory. His research centers on the political consequences of social and economic change in Latin America. His specific interests include agrarian politics, civil-military relations, and economic policy. (Director of Center for European Studies 1984-86)

Eugene W. Hickok, Jr., Assistant Professor of Political Science. Ph.D., University of Virginia. American government with a special emphasis upon policy and administration studies is his primary focus of interest. His recent research interests include the administration of higher education among the states and the practice of public administration in the federal, state, and local governments. He maintains an ongoing interest in the institutions of national government.

David G. Strand, Assistant Professor of Political Science. Ph.D., Columbia University. His field is 20th-century Chinese politics and history. Research interests include local politics, political participation, and state-building.

Russell Bova, Instructor in Political Science. M.A., Indiana University. His fields are Comparative Politics and International Relations with a special interest in Soviet politics. His current research focuses on labor-management relations in the USSR.

H.L. Pohlman, Assistant Professor of Political Science. Ph.D., Columbia University. Constitutional law and legal-political thought. Current research concerns the impact of O.W. Holmes's jurisprudence upon 20th century American legal thought.

Courses:

The following courses are grouped according to the four major subfields of political science: political theory, American politics, comparative politics, and international relations. Introductory and intermediate courses are numbered in the 100; advanced courses are numbered in the 200. Within the 100 and 200 ranges, numbering sequences reflect subdivisions of the field and not level of difficulty.

Political Theory

101. Introduction to Political Philosophy An introduction to the history of Western thought on the problems of the possibility of knowing political justice and creating a just polity. Major texts from the tradition will be discussed.

109. Polimetrics and Research Philosophy and research methodology of behavioral political science. The course briefly examines the assumptions and procedures of natural science and discusses their relevance to the contemporary study of political phenomena. During the balance of the course, students learn to use quantitative techniques of political analysis such as survey research (polling) and aggregate data analysis by participating in original group research projects. No prior knowledge of statistics is necessary. Especially recommended for prospective graduate students in the social sciences.

202. Recent Political Thought An introduction to the political thought of the 20th century focusing on the works of Weber, Freud, Dewey, Strauss, and others. *Prerequisite: 101 or permission of the instructor.*

205. American Political Thought The development of political ideas in America, stressing foreign influences on early colonial thought and those influences indigenous to the growth of American democracy. Colonial political ideas, the development of the Constitution, the Feder-

alist Papers, states' rights philosophy versus centralized government and contemporary interpretations, and other questions dealt with.

Prerequisite: an introductory course in political theory or permission of the instructor.

207. Marxist Political Thought An examination of the political philosophy of Karl Marx, Lenin, Trotsky, and others within the tradition of Marxist scholarship and politics. *Prerequisite: Political Science 101 or permission of the instructor.*

American Politics

120. American Government A basic introductory course in American federal government which emphasizes its structure and operation as well as modern methods of analysis. Special attention is given to the executive, legislative, and judicial processes.

121. Law, Politics, and Society An introduction to the study of law and the legal process. Topics will include the idea of natural law, the political implications of the rule of law, the political implication of the rule of law versus the rule of men, and the influence of law in shaping society, including administrative and business law.

131. Public Policy Analysis The purpose of this course is to acquaint students with the concepts embraced in policy analysis and the methods employed by those individuals who study and analyze public policy. It is designed not only to provide a working knowledge of technique but also a knowledge of the intellectual support for that technique. Some emphasis will be placed upon the economic approach to public policy and the implications of that approach. *Prerequisite: one course in Political Science or Economics.*

140. The City Major concerns are the city as a frontier, the city as people, the city as plan, problems of urban politics, problems of society.

141. Policy Making in State and Local Governments An analysis of state and local governments with particular emphasis on the exertion and distribution of political power and on the influence of bureaucracies in policy making.

Attention is given to political pressures and bureaucratic constraints experienced by policy makers in such areas as criminal justice, corporate regulation, poverty relief, and urban growth and planning.

220. Constitutional Law I An analysis of the Constitution as the fulcrum of the political system and as the ultimate legitimizing instrument available to political forces competing to adapt the legal order to their fundamental needs. The major focus is on the Supreme Court's role in defining the powers of the three branches of the federal government. The period before 1937 is emphasized. *Prerequisite: 120 or permission of the instructor.*

221. Constitutional Law II Stresses trends and developments in civil liberties, with particular emphasis on the Supreme Court's interpretation and application of the "equal protection" and "due process" clauses of the Fourteenth Amendment from the early 1950's to the present. Individually-selected special topics will be used as an integral part of the course. *Prerequisite: 120 or permission of the instructor.*

231. Public Administration An analysis of the organization and functioning of the national bureaucracy in a democratic society. Special attention is given to presidential management, theories of organization, independent regulatory agencies and bureaucratic pathology, financial and personnel administration, and administrative responsibility. *Prerequisite: 120 or permission of the instructor.*

241. The Black Experience A survey course analyzing the experience of black people in the American political system. Contemporary political issues confronting the black community will be discussed in the light of its history and the nature of the American political system. Organized around the central questions: Is black equality possible within the confines of the American political system as it is currently organized?

242. Political Behavior Cultural, social, and psychological factors which contribute to forms and directions of political behavior. Special attention is given to American voting behavior, ethnic

political behavior, and personality influences on politics. Field surveys are undertaken to illustrate contemporary trends. *Prerequisite: 120 or permission of the instructor.*

244. Public Opinion and Propaganda The nature, formation, and manipulation of public opinion in a democratic society. Included are an analysis of mass communication (press, television, and film) from the McLuhan and behavioral perspectives, propaganda techniques and effects in both democratic and authoritarian societies, and problems of public opinion polling. *Prerequisite: 120 or permission of the instructor.*

245. Political Parties and Interest Groups A study of the functions, structures, and operations of American political parties and interest groups. Special attention is given to the techniques of running a campaign for office, to the role of the media in superseding American parties, and to the interactions of government with the two largest "interest groups": business and labor. *Prerequisite: 120 or permission of the instructor.*

246. The Legislative Process An analysis of the legislative branch of government, especially the national Congress. Emphasis is placed upon the legislature as a social system, the decision-making process, the interrelationships with the political parties and interest groups, the executive and the judiciary. *Prerequisite: 120 or permission of the instructor.*

247. The American Presidency An in-depth analysis of the nature and significance of "the Man" and "the Office," including constitutional development, presidential roles and customs, the recruitment process, the executive branch, and the politics of the presidency. *Prerequisite: 120 or permission of the instructor.*

248. The Judiciary An institutional analysis of the federal judicial process. Focus is on the politics of nominating federal jurists; an introduction to legal reasoning; the structure, organization, and staffing of the courts; and the political influence of the judiciary. *Prerequisite: Political Science 120.*

Comparative Politics

150. Comparative Politics An introduction to comparative political analysis with applications to political systems, processes, and issues in countries of the Third World and in advanced industrial states alike. The purpose of the course is to learn to observe systematically, to analyze political phenomena, and to distinguish and evaluate the assumptions underlying alternative approaches to the study of politics.

250. Comparative West European Systems European parliamentary institutions analyzed as alternative liberal-democratic systems. Particular attention is paid to the British Cabinet form, the French Presidential form, the Italian Coalition form, and to the German Federal form.

251. Latin American Government and Politics An introduction to the politics of contemporary Latin America. Emphasis is placed upon the varied political institutional responses to socio-economic change in the Americas. Major countries to be analyzed include Argentina, Brazil, Colombia, Mexico, and Cuba. *Prerequisite: one course in Political Science or Latin American Studies.*

252. African Government and Politics An introduction to the politics of contemporary, sub-Saharan Africa. After analyzing the historical and socio-economic context of African politics, the course examines a number of contrasting political systems in depth. The final section of the course discusses the current problems of Southern Africa from an international perspective. *Prerequisite: one course in Political Science.*

253. Soviet and East European Politics An analysis of the development structure and issues of Soviet and East European politics.

254. Asian Governments and Politics Comparison of the People's Republic of China, India, and Japan: ecology, traditional cultural themes, the great issues of politics, the modernization process, international relations.

International Relations

170. International Relations Analysis of the capabilities, limitations, and patterns of interaction

of state and non-state actors in their pursuit of multiple objectives in the international system.

270. International and Comparative Law An introduction to the limits on International Law; its sources, territorial jurisdiction, the law of treaties, and conflict-resolution; and to the major "families of law" applied within countries of the Common Law, German-Roman, and Socialist traditions. Particular attention is given to the relationship between legal systems and social values. *Prerequisite: Political Science 250 or 170 are recommended.*

275,276. Studies in Modern European Politics To be offered only in Bologna.

280. Formulation of American Foreign Policy An analysis of the methods by which foreign policy is formulated and executed as well as the study of American programs and problems in the major areas of the world. Policies concerning disarmament, economic and military aid, and the United Nations are also considered. *Prerequisite: 120 or permission of the instructor.*

281. American National Security Policy Analysis of formulation and implementation of American national security policy within the context of American society and the international system. National security will not be considered simply in a military/strategic sense but as connoting the preservation of the core values of a society. *Prerequisite: 170 or 120 or permission of the instructor.*

190,290. Selected Topics in Political Science Topics not normally studied in depth in the regular offerings are analyzed in these special topics courses.

390. Seminar A seminar in selected topics in political science. *Open to sophomore, junior, and senior majors and to others with permission of the instructor.*

Major: Nine courses, including Political Theory (101), American Government (120), International Relations (170), any course in Comparative Politics (150, 250, 251, 252, 253, 254, 270, and when appropriate, 275, 276, 190, 290) and a 390 seminar. No courses may be taken Pass/Fail.

Normally five courses must be taken in residence.

Honors: The department offers two options for pursuing honors. Prerequisites are a GPA of 3.0 in all courses and 3.25 in political science courses. Two faculty members will serve as first and second readers or advisers. The options are:

- (1) Two semesters of independent research, beginning in the sixth or seventh semester, culminating in the presentation and defense of a paper.
- (2) Written and oral examinations at the conclusion of a tutorial major. The tutorial major program is intended for the student who is interested in a comprehensive and intensive examination of the field. The student works primarily under the guidance of two members of the department (first and second adviser) by mutual agreement. Together they devise a program of study, to be approved by the department, which indicates the fields of concentration, political science courses to be taken for credit (pass/fail or letter grade) or audit, papers and essays to be written, etc. The only specific course requirement is a 390 seminar. Program changes may be made with the approval of advisers and the department up to and including the seventh semester. A student portfolio will contain samples of essays and other work as well as evaluations by the tutors and other instructors as appropriate.

Normally the program begins no sooner than the student's third semester.

In the spring semester of the senior year the student is required to sit for a comprehensive written and oral examination to be administered by the department. The examination will deal with the fields of political science agreed upon by the student, tutors, and the department. Normally one-quarter of the final semester should be dedicated to preparation for the comprehensive examination. The grade assigned will be pass, fail, or pass with departmental honors. One re-examination in one or more fields may be permitted within the calendar year.

Minor: Six courses. Beginning with the Class of 1984, coursework submitted for the minor must be from at least four of the subfields. (Political Theory, American Politics, Comparative Politics, and International Relations.)

Off-Campus Study: Majors may apply to spend one or two semesters off campus in a variety of programs: e.g., the Washington Semester at American University and Dickinson's Center for European Studies in Bologna, Italy.

Portuguese

See Spanish

Psychology

The separate discipline of psychology emerged in the late 19th century. Its emergence was a culmination of developments in philosophical speculation about the nature of man and about man's knowledge of self and the universe, advances in the scientific study of sensation and perception, and attempts to make empirical measurements of man's behaviors. The programs of the department reflect this heritage as it seeks to bring students to an awareness of what it means to address the issues of self and society in an objective fashion. Undergraduate students come to this discipline from a variety of interests or concerns. The faculty and the department course offerings seek to address these interests and concerns to the degree possible within the resources available. All who major in the department are exposed to a survey of the field and are expected to master certain of the skills necessary for empirical study of its subject matter. However, there are several avenues which can be followed to the completion of the major so that each student has an opportunity to complete the early stages of preparation for responsible adulthood, which in some instances means the student has begun preparation for a career in the scientific study of or the practical application from the principles and practices of the field.

Faculty:

Stephen B. Coslett, Professor of Psychology. Ph.D., University of Denver. Clinical psychology, abnormal, and physiological psychology are the focus of his major teaching interests. His current research is in the area of biofeedback relaxation and the somatization of psychosocial stress.

Frank R. Hartman, Associate Professor of Psychology. Chairman. Ph.D., Pennsylvania State University. His early writing interest and continuing teaching interest is in the process of effective instruction. His present writing interest is the relationship between student and instructor.

Larry A. Engberg, Associate Professor of Psychology. Ph.D., University of Colorado. As the

department's resident behaviorist, his teaching and research interests are in the experimental analysis of behavior and theories of learning. Research interests include animal analogues to human behavior such as "Learned Helplessness" and "Learned Laziness," attentional processes in animals, autoshaping, and the nature of the operant. He has a strong secondary interest in the use of computers in psychology.

Walter Chromiak, Assistant Professor of Psychology. Ph.D., Temple University. Human cognitive processes (perception, memory, and thinking) are the focus of his teaching and research interests. His current research examines how our memories influence our perceptions of our competencies. He is also interested in the cognitive processes which accompany the development of skills, such as chess playing.

Gregory J. Smith, Assistant Professor of Psychology. Ph.D., SUNY at Buffalo. Concerned primarily with the normal development of infants and young children, his current research involves the assessment of mediational variables operating in preschool social interactions. Through a close relationship with the Carlisle Day Care Center his students are afforded the opportunity to participate in a practicum learning experience. Besides teaching courses in developmental child psychology, his course load reflects additional training in applied aspects of behavior modification.

James A. Skelton, Assistant Professor of Psychology. Ph.D., University of Virginia. His teaching interests are in areas of social psychology, including interpersonal perception, personal control over the environment, the social basis of human emotion, and the psychological impact of physical illness, and in the philosophy and design of psychological research. His research interests include perceptual and environmental factors affecting physical symptoms and health-related behavior, expressive behavior in interpersonal relations, and the relationship between emotions and bodily states.

Contributing Faculty:

James A. Boytim, (Education)

Courses:

105. Violence and Aggression The course will present an overview of violence and aggression. Aggression will be viewed from the following approaches: ethological, psychoanalytic, frustration, social learning, and physiological. *Offered in Summer School only.*

111. Introduction to Psychology A survey of areas of contemporary psychological study to acquaint students with viewpoints, findings, and techniques of investigation of the discipline.

140. Social Psychology A survey of major current theories of social behavior and relevant findings of field and laboratory studies. Is available to and appropriate for any undergraduate student.

210. Sleep and Dreams This course will provide an introduction to the joint phenomena of sleep and dreams via a psychological exploration of the literature, both scientific and nonscientific, relating to these areas. Topics to be covered include early attempts to interpret dreams, stimulus determinants of dreams, and various psychological interpretations of the importance of dreams. *Offered in Summer School only.*

220. Experimental Analysis of Behavior An introduction to operant conditioning in particular and to psychological experimentation and inference in general. The self-paced course has 20 unit tests, individual conferences, and five laboratory experiments. *Prerequisite: 111.*

221. Research Design and Statistical Evaluation An examination of statistical and non-statistical methods as they relate to the design and evaluation of experiments in the field of psychology. Extensive experience with practical applications will augment the instruction. *Prerequisite: 111.*

231. Educational Psychology Also called Education 231. Psychological principles and practices related to problems of classroom instruction. This course has greatest relevance for students who intend careers in teaching. *Prerequisite: 111 and Education 221.*

232. Personality Psychology A survey of major current theories of personality and relevant empirical and clinical literature. Is available to and appropriate for any undergraduate student.

237. Developmental Psychology A survey of contemporary findings, principles, and observational methodology of human development. Field work with children supplements the academic activities. *Prerequisite: 111.*



240. Cognitive Psychology Cognitive psychology deals with the problems of how we acquire and use information, and how the acquisition and use of knowledge changes over the lifespan of the individual. Specific topics within this area include perception, attention, memory, language acquisition and development, problem solving, and thinking. *Prerequisite: 111.*

276. Abnormal Psychology An introduction to various mental illnesses and techniques of diagnosis and treatment. Relevant for students who anticipate careers in medicine, law, and the various areas of social and psychological service.

320. Cognitive Processes Explores problems of the design, conduct, and analysis of research in human learning, perceptual-cognitive processes, and related areas. Students perform, and prepare written reports of, experiments which exemplify methodological problems normally encountered in such research. Three hours of classroom and three hours of laboratory a week. *Prerequisite: 111 and 240.*

321. Advanced Experimental Conditioning Developing critical skills in relating psychological theory to empirical data. Advanced problems in animal learning, and the stimulus control of behavior are explored. Three hours class and extensive independent laboratory research. *Prerequisite: 220 and 221.*

326. Physiological Psychology A review of the structure and function of the nervous system as variables in behavior and the psychological processes. Three hours classroom and four hours laboratory a week. *Prerequisite: 220 and 221.*

338. Experimental Child Psychology A survey of comprehensive theories of human development and of contemporary research emphases of developmental psychologists. Students perform and prepare written reports of empirical studies of developmental phenomena. Three hours of classroom and three hours of laboratory a week. *Prerequisite: 220, 221, and 237.*

339. Principles of Counseling Review of theories and techniques of counseling as applied to educational, vocational, and personal problems. *Prerequisite: 111.*

350. Behavior Modification An advanced course reviewing the conceptual and methodological bases of behavior modification. Specific applications of operant conditioning principles and other empirically derived techniques to control undesirable, unadaptive, or dangerous behaviors in a variety of populations will be presented. *Prerequisites: 220, 221.*

361. Introduction to Clinical Psychology An overview of clinical psychology as an academic discipline and as a professional art which includes the behavioral problems encountered along with procedures for their diagnosis and treatment. Relevant to those students seeking careers in the various areas of social and psychological service. *Prerequisite: 220, 221, and permission of the instructor.*

376. Junior Seminar Reading in, review of, and discussion about selected topics of current importance in the discipline. *Prerequisite: Permission of the instructor.*

430. Psychology of Religion Examines psychologists' understanding of those social institutions and individual experiences which man has described as religious. *Prerequisite: Senior status in either psychology or religion.*

461. Psychological Testing The use of psychological tests and observational procedures in the assessment of individuals. *Prerequisite: 132 or 276, 237, 361, and permission of the instructor.*

471. Systematic Psychology I An advanced course, for students with a strong background in experimental psychology, which studies the major learning theories of the 20th century. *Prerequisite: 111, 220, 221, and 321.*

481,482. Senior Seminar Readings in, reports of, discussion about, and critical examination of issues central in present day psychology. *Prerequisite: Permission of the instructor.*

Psychology Internship A program reserved to those students who have applied themselves in

the undergraduate offerings relevant to those aspiring to social or psychological careers of human service. Prospective enrollees in this course must satisfy the internship coordinators as well as meet the department's expectations. *Prerequisites: 361 and permission of the department chairman.*

Major: Ten courses, including 111, 220, 221 and any course from the 320 to 338 set of advanced laboratory courses. All students, including transfers are expected to take a minimum of five courses in the department, of which four must be at the 300/400 level. Only one course credit in internship may be applied toward the major. Students may apply to declare a major in Psychology when they have completed, with a grade of "C" or better: Psychology 111, Introduction to Psychology AND EITHER Psychology 220, Experimental Analysis of Behavior OR Psychology 221, Research Design and Statistical Evaluation

Minor: Six courses, including 111 and 220. Four courses must be taken in the department.

Public Speaking

The courses in public speaking are directed toward improvement in verbal communication and toward the development of greater self-assurance and ease in social and professional situations.

Faculty:

Richard P. Lewis, Part-time Instructor in Speech. B.A., Bates College. He was National Intercollegiate Debate Champion, 1969. He teaches public speaking and serves as adviser to the Debate Council. His other academic interests include speech writing and rhetorical criticism.

Courses:

225. Argumentation and Debate The logic and strategy of debate. Group discussion techniques. Participation in debate.

325. Public Speaking The theory of and practice in the fundamentals of public speaking.



Religion

Religion is a relationship between a person or a group of persons and the Ultimate. The study of religion (although it explores the roles that religion plays in personal psychological life, society, culture, politics, history) is primarily an attempt to let the diverse forms of religion stand for and speak for themselves as unique phenomena. The study is a process of observation, appreciation, recognition of repeated patterns, formulation of theories, attempts to understand, and the articulation of questions. The student observes human viewpoints, ideas, images, actions, and emotions which in relationship to the sacred have been called enlightenment, doctrine, or teaching, symbols, liturgy, and mystical inspiration. Such phenomena range from the recognition and enjoyment of the sacred void to worship of a personal god. Moving from these observations, the student of religion seeks to understand the meaning of these human religious activities for persons and communities, attempting to appreciate the human spirit as it expresses itself in religion. The recognition of unique religious actions and also of common elements which appear across cultural lines is part of the process of formulation of critical reflections of the viability and consequences (both constructive and destructive) of religious acts. Part of the process of critical analysis is the development of definitions of religion and theories concerning its origins, transformation, relationships to other human activities, and its future. Finally, the study of religion inevitably leads the student to questions about existence, its foundation in being, and the one or ones (human or divine) who give or recognize the value of all forms of existence from the smallest particle to the Universe.

Courses in religion emphasize one or another of these processes but all of them include each aspect. Some courses are comparative. Others emphasize a specific tradition or texts within a tradition. Others deal mainly with the questions of existence and ethics or values.

Because of the diversity of religious phenomena and differing interests of students we invite a student to begin the study of religion in any 100-level courses. Thereafter, a whole range of

topics are offered at the 200-level. Detailed titles and descriptions for courses numbered 201, 202, 203, 207, 208, 209, 211, and 220 will be published with the description of courses for the subsequent semester.

When students seek more concentrated study, they may contract with the professor of a 200-level course to change, by add/drop time, that 200-level course into a 300-level tutorially advanced course. A 300-level course involves regular additional discussions with the instructor, greater specialization in course papers, and further reading. The full department must approve such requests.

Faculty:

Harry F. Booth, Professor of Religion. Ph.D., Boston University. His teaching focuses on the dynamics of religion as both expressive and critical of culture, and theology as both expressive and critical of religion, in both traditional and implicit forms. His general scholarly interests are in historical and liturgical theology and the theology of culture, especially social ethics and literature. His present special interests are in Dietrich Bonhoeffer plus Holocaust Studies, and in J.R.R. Tolkien, and War and Peace Studies. (On leave Spring 1985)

Daniel R. Bechtel, Professor of Religion. Ph.D., Drew University. His teaching responsibilities focus upon the interpretation of the Biblical texts in their ancient contexts. The impact of the Biblical materials upon later theological, ethical, and symbolic developments is a dimension of his concern for the continuing processes of interpreting the Bible. His research interests are the Gospels, the social world of the early church and the interpretations of the Gospels and Paul by the early church fathers.

Ralph Slotten, Professor of Religion. Chairman. Ph.D., University of Chicago. History of Religions. His teaching is especially concentrated in Hinduism and Tibetan Buddhism. His special interests are in Native American religion and in Celtic and Nordic mythology. His research is in comparative mythology and in methodological concerns.

Stanley N. Rosenbaum, Associate Professor of Religion and Classics. Ph.D., Brandeis University. He has taught “virtually everything in Judaica from Adam to Zionism,” but feels especially at home in Hebrew Bible and in American Jewish history. His current research centers around a commentary on the Book of Amos.

Contributing Faculty:

Associate Professor Krebs (comparative civilizations)

Courses:

A. Cross-Traditional and Methodological Courses

100. Religion in the Ancient Mediterranean World An introduction to the study of religion (methodology, problematics) by way of a comparative survey of the religious traditions of the Egyptians, Sumerians, and ancient Semitic and Indo-European speaking peoples such as the Hebrews and Arabs; the Greeks, Romans, and Indo-Iranians.

120. Religion in South Asia An introduction to the formative role of religious consciousness in the development of the cultures of India.

130. Religion in East Asia An introduction to the formative role of religious consciousness in the development of the cultures of China and Japan.

220. Topics in the History of Religions (in different semesters: Primitive and Archaic Religion; Myth and Ritual; Mysticism and Religious Tradition; the Theomythology of J.R.R. Tolkien; other). Specialized studies with methodological implications. *Normal prerequisites: 100, 120, or 130 as appropriate to topic, or permission of the instructor.*

B. The Religious Traditions

Various Traditions

201. Traditions in the History of Religions (in different semesters: Puranic Hinduism; Islam; Taoism; Confucianism; Celtic and Nordic Religion and Mythology; other). Specialized historical textual, and phenomenological studies. *Normal prerequisites: 100,120, or 130 as appropriate to topic, or permission of the instructor.*

Normal prerequisites: 100,120, or 130 as appropriate to topic, or permission of the instructor.

Buddhism

(120 and 130 will be appropriate for students interested in the antecedents of Buddhism.)

202. Studies in the Buddhist Tradition (in different semesters: Theravada; Mahayana; Zen; Tantra; other). Historical, phenomenological, and textual studies of the thought systems, practices, and cultural interactions of the major sub-traditions of Buddhism. *Normal prerequisites: 100, 120, or 130 as appropriate to topic, or permission of the instructor.*

Judaism

103. Torah, Prophets, and Writings (The Old Testament) A critical examination and attempt to understand the literary deposit and the antecedent traditions remembered and formulated by the Ancient Israelites in encounter with their God, with other gods, and with the history and culture of the Ancient Near East. This literature known as the Old Testament to Christians is interpreted in the contexts of the times in which it was written and the ideas current in those times.

203. Studies in the Hebrew Tradition Critical examination and discussion of selected topics dealing with Ancient Israel, the surrounding cultures, and Old Testament concepts and literature. (in different semesters: The Prophetic Faith; Wisdom in Israel and the Ancient Near East; Sacred Story; Temple & Cultus; other). *Normal prerequisites: 100 or 103, as appropriate to topic, or permission of the instructor.*

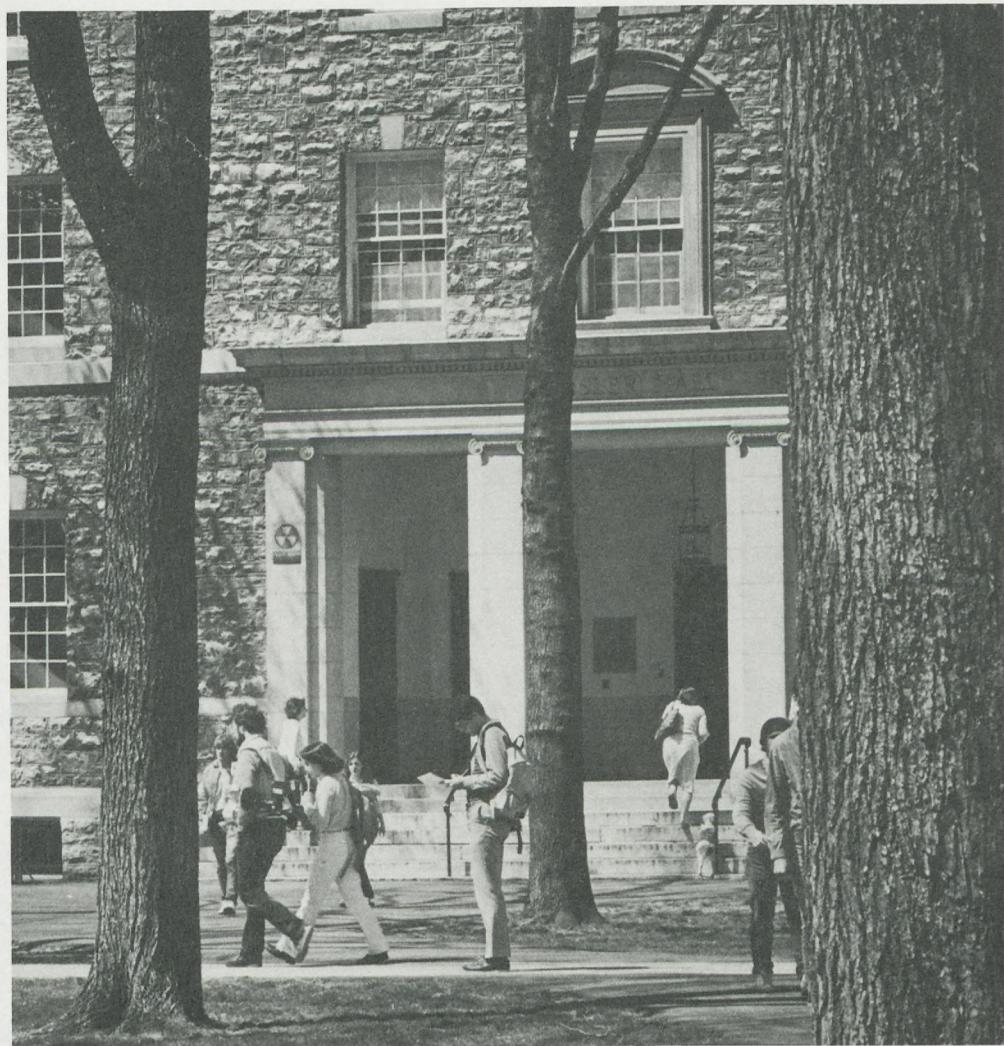
204,205. The History of the Jews A survey of the history of the Jewish People from ca.445 B.C.E. to 1786 C.E. Two semesters: 204. Ezra to Islam: Hellenism. “Normative Judaism”, Christianity. 205. Muhammad to Mendelssohn: Islam, Crusades, Jewish Philosophy, Reformation, Enlightenment. *Normally offered in alternate years.*

206. Studies in the Jewish Tradition (in different semesters: Principles and Topics in Jewish Law: a general study of the growth, nature and content of Halakhic and Midrashic material; Modern Jewish Thought: 19th and 20th century Jewish responses to the problems attendant upon "emancipation," emphasis on Buber, Heschel, Rosenzweig, other.) *Normal prerequisites: 103 or 204, 205 as appropriate to topic, or permission of the instructor.*

Christianity

(103 and 204 will be appropriate for students interested in the antecedents of Christianity.)

107. The New Testament A critical examination and attempt to understand the New Testament as the written traditions which articulated the faith, expectations, and actions of the early Christians as they responded within Jewish and Greek culture to the historical events of their day, and especially as they responded to the life and death of Jesus of Nazareth.



207. Topics in New Testament Study A critical examination and discussion of selected issues. (in different terms: The Portrayal of Jesus in Traditions and History; New Testament Theology: Paul, John, Hebrews; Eschatology and Ethics in the New Testament; Christ, Cosmos, and History; other). *Normal prerequisites: 100 or 107, or permission of the instructor.*

108. The Emergence of the Christian Tradition The complex emergence of orthodoxy and the limits of its pluralism; the Church, its liturgy and doctrine; its self understanding and its way in the world; the first four centuries.

109. The Emergence of the Protestant Tradition The reformations of the 16th century; their impulse and critiques; their solidarity and divergences; the problem of constructive Protestantism.

208. People and Movements in Christianity Studies in paradigmatic and idiosyncratic individuals, and in historical movements and periods (in different semesters: Greek and Russian Orthodoxy; Augustine; Francis of Assisi, and Joan of Arc; Modern Catholic Thought; other). *Normal prerequisites: 100 or 108 or 109, as appropriate, or permission of the instructor.*

209. Issues and Topics in Christianity Critical inquiry into facets and problems in Christian thought (in different semesters: Christian Ethics; The Holocaust; Theologies of War & Peace; other). *Normal prerequisites: 100 or 108 or 109, as appropriate, or permission of the instructor.*

C. American Religious Culture

211. Aspects of American Religious Culture Studies of American life in which religion and other dimensions of culture significantly interact (in different semesters: The New England Tradition; Black Religious Experience in America; Jews and Judaism in the United States; American National and Civil Religion; Sects and Cults; other).

D. Religion and Contemporary Culture

110. Western Religion and Modern Culture Interpretive analyses of aspects of modern culture and sensibility—literary, social and institutional—from both secular and theological sources; inquiry into the dimensions of religion in culture, personal, social-ethical, and ecclesiastical.

410. Religion in the Contemporary West Critical explorations into the problematic and the forms of religious sensibility in the contemporary West. *Normal prerequisites: Senior standing and permission of the instructor.*

Major: entails a minimum of 10 courses.

1. Religion 100
2. Four courses within a tradition (Buddhism, Judaism, Christianity).
3. Five courses chosen with departmental guidance to assure diversity and complementarity within the field.
4. Of the ten courses, three will be at the 300 level.

Minor: entails a minimum of 6 courses.

1. Religion 100
2. Three courses within a tradition
3. Two other courses
4. Declaration and Advisement

Russian

See German and Russian or Russian and Soviet Area Studies

Russian and Soviet Area Studies

This interdisciplinary major is designed to provide the student with a broad, balanced understanding of Russia and the Soviet Union. Through a series of interrelated courses the student will gain an in-depth view of the rich cultural, historical, and political heritage which underlies past and present policies of the contemporary Soviet state.

The specific courses offered include Russian literature, language, history, politics, economics, sociology, religion, philosophy, music, and art. Students also have the opportunity to participate in language study programs abroad as well as in cultural events on campus and in nearby cities. These courses and activities provide a perspective necessary to view actions and events by which the Soviet Union has and will have impact upon the life and policies of all Americans. It will also provide a critical perspective through which a broader understanding of our own culture, heritage, and actions will be gained.

This broad, flexible major serves as excellent preparation for individuals intending subsequent specialization in law, international relations, business, politics, government service, and teaching. It also makes a sound companion program for those who are interested in a double major.

For detailed course descriptions students should refer to the individual department pages.

Contributing Faculty:

Associate Professor Segall (German and Russian), Director

Professor Emerita Bogojavlevsky (Russian)

Assistant Professor A. Tsvetkov (Russian)

Assistant Professor O. Tsvetkov (Russian)

Associate Professor Rhyne (History)

Associate Professor Weissman (History)

Professor T. Bullard (Music)

Associate Professor Grier (Philosophy)

Instructor Bova (Political Science)

Professor Booth (Religion)

Courses:

401. Interdisciplinary Seminar Intended to integrate the several approaches of the Russian and Soviet Area Studies Program and to provide a framework for independent study of a comparative nature. Offered cooperatively by the staff of the program. *Prerequisite. Permission of the instructor.*

Major: 1. Three courses from the following courses taught in the Russian language: Russian 321, 232, 233, 234, 360. 2. Two courses in Russian literature or in Russian culture and civilization, one from the earlier and one from the later period: Russian 221 or 223, and Russian 222 or 224. 3. Two courses in Russian history: History 253 and 254. 4. Interdisciplinary Seminar: Russian and Soviet Area Studies 401. 5. Four courses of the following, of which no more than two, including independent studies*, may be accredited from any numbered group:

- a. History 213*
- b. Economics 376
- c. Music 105*
- d. Philosophy 261*
- e. Political Science 207, 253, 390*
- f. Religion 208*
- g. Russian 221*, 222*, 223*, 224*, 241, 242, 260, 360
- h. Sociology 252

Minor: Option A: 1. Russian 200 or the equivalent. 2a. One course in Russian literature or Russian culture and civilization. 2b. One course in Russian history. One from a or b should be in the earlier, one in the later period. 3. Interdisciplinary seminar: Russian 401. 4. Two other courses from the following:

- a. Economics 376
- b. History 253, 254, 213*

- c. Music 105*
- d. Philosophy 261*
- e. Political Science 207, 253, 390*
- f. Religion 208*
- g. Russian 231, 232, 233, 234
- h. Russian 221, 222, 223, 224, 231, 232, 233, 234, 241, 242, 260, 360
- i. Sociology 252

Option B: 1a. One course in Russian literature
1b. One course in Russian culture and civilization
1c. One course in Russian history. One from a or b or c should be in the earlier period. 2.

Interdisciplinary seminar: Russian 401. 3. Two other courses from the following:

- a. Economics 376
- b. History 253, 254, 213*
- c. Music 105*
- d. Philosophy 261*
- e. Political Science 207, 253, 390*
- f. Religion 208*
- g. Russian 221, 223, 224, 241, 242, 260, 360
- h. Sociology 252

4. Interdisciplinary Seminar: Russian 401

* When the topic is approved by the director.

** If different from "2".



Science

Courses in the history and contemporary dimensions of science are intended to orient liberal education to the scientific and technological basis of modern civilization. The history of science courses examine the emergence of science within the larger cultural environment, exploring the relationship between science and other forms of human understanding. Courses in contemporary science focus on issues which are central to modern society, and explore the ways by which science and society can understand the larger physical world.

No major nor minor is offered in this program. Science courses, in addition to those likewise designated in other departments, satisfy the third course of the science requirement (in Natural Science).

Faculty:

E. Robert Paul, Associate Professor of Computer Science and the History of Science. Coordinator. Ph.D., Indiana University. His areas of specialization include the development of science since the Renaissance, with emphasis on the shifting paradigms in emerging scientific frameworks. His recent research includes history of modern astronomy, the interaction of science and religion, and the development of cosmology since the Enlightenment.

Contributing Faculty:

Professor Wolf (physics)

Associate Professor Smith (physics)

Courses:

258. History of Science Traces developments in science as a major aspect of Western civilization. Examines science and scientific enterprise by devoting particular attention to the following: the structuring of basic assumptions about nature and method; social, cultural, and religious dimensions of scientific change and discovery; noted developments in the physical and life sciences. Topics vary and will be announced each term. Recent topics have included: The Scientific Revolution, History of the Physical Sciences, Development of Modern Science, History of Medicine, Darwin and Social Darwinism, American Science, and Science of Religion.

260. Contemporary Science: Nuclear War & Peace A lecture course on nuclear reactors, nuclear weapons and the arms race. Topics include the recent energy crisis, the scientific basis of nuclear power, the promise and hazards of nuclear power reactors; the history, technology and effects of nuclear weapons, American and Soviet strategic positions, new weapons systems and disarmament proposals.

261. Problems of Energy Modern energy needs and their problems are examined in relation to the environment and society from their fundamental scientific basis.

262. Concepts of Matter Traces the development of those concepts that relate to our knowledge of matter, with references to chemistry of the earth and especially to contemporary science and its implications for man.

Sociology

Sociology studies how human beings live in groups and societies they establish and how they judge the meanings of their social life. Starting with the individual, sociologists observe how the commitments of social beings, expressed in everyday interactions, bind them together in social relationships and result in the production of value, belief, and behavioral systems. Starting with societies, cultural traditions, and whole civilizations, sociologists inquire into the alternative cultural designs, forms of social organization, and modes of consciousness by which people in cooperation and in conflict order their shared lives and individual identities.

Sociology seeks to foster reflective self-understanding in its students through heightened awareness of theirs and others' underlying commitments and to advance the ability of human beings to act adequately in the various relations, communities, institutions, and practices of their own society and the world.

Society's concerns do not resolve themselves in disciplinary isolation. Majors will find it helpful to become closely acquainted with at least one other discipline in the humanities or the social sciences, such as political science, history, religion, philosophy, psychology, economics, or one of the regional programs: American, Russian and Soviet, Latin American. Double majors and interdisciplinary studies are encouraged and helped along.

An emphasis on sociology's educative rather than training value has enabled majors to serve in a broad range of endeavors, not only university and secondary teaching, law, social work, and counseling, but also journalism, urban politics, and business management.

Faculty:

Vytautas Kavolis, Professor of Sociology. Ph.D., Harvard. His past publications include the sociology of art, comparative social problems, and cultural psychologies. His current research involves empirical mapping of moral cultures, comparative histories of selfhood and sociability,

modernization and antimodernist movements. (On leave 1984-85)

Marvin Israel, Associate Professor of Sociology. B.A., City College of New York. He is interested in the moral and philosophical analysis of fundamental theoretical perspectives in sociology. He specializes in social theory, the relations between men and women, deviant behavior, and studies of the spiritual dimensions of bodily practices such as fitness activities and eating.

Susan D. Rose, Instructor in Sociology. M.A., Cornell University. She is currently completing research on "Christian Schools in a Secular Society."

Contributing Faculty:

Associate Professor Friedman (political science)

Associate Professor Weissman (history)

Courses:

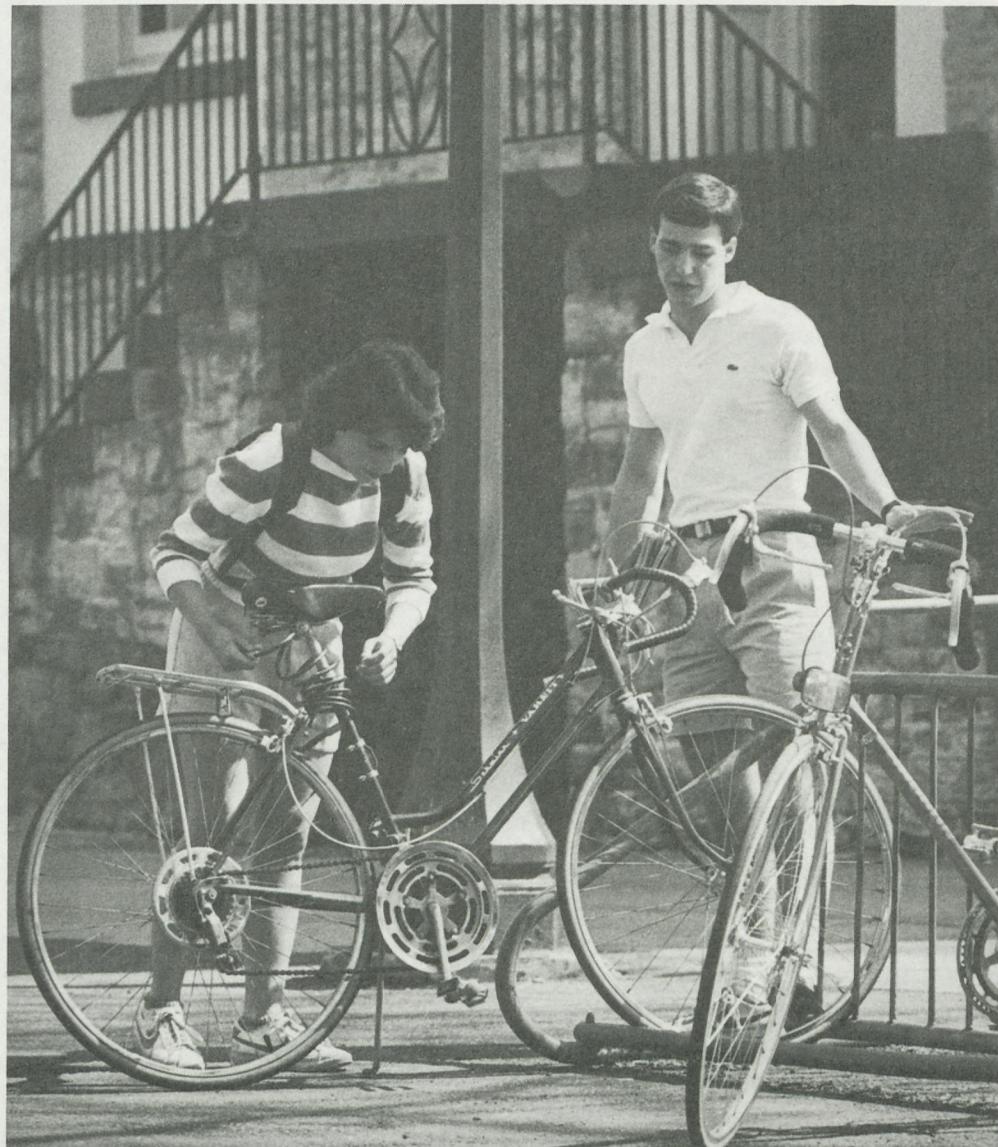
110. Social Analysis Selected topics in the empirical study of the ways in which people's character and life chances are affected by variations in the organization of their society and of the activities by which social arrangements varying in their adequacy to human needs are perpetuated or changed.

111. Introduction to Thinking About Society Tries to put forth a morally responsible approach to the study of core phenomena in sociology—stratification, work, deviance, urban life, culture, research methods, and general theory. Contrasts the value neutral claims of a conventional sociological textbook with a more overtly committed sociology.

212. Relations Between Men and Women Love and its aberrations, men's and women's perceptions and treatments of one another, the nature of masculinity and femininity, homosexuality, and pornography analyzed from a sociological perspective, but drawing on a wide selection of sources in sociology, psychology, philosophy, literature, and film.

221. Self, Culture, and Society The diverse ways in which human beings comprehend what kinds of persons they are. Close reading of autobiographies and analysis of sociopsychological climates in which particular experiences of self-hood arise and of civilizational categories by which they are judged to be valid or not.

222. The Family Phenomenon Social forces and cultural traditions shaping different kinds of family relations and emotional qualities of family life. The emergence of the modern family and its current concerns. Changes in the patterns and meanings of woman-man and parent-child relations. Causes and consequences of variation in these patterns, processes, and problems.



223. Deviant Behavior and Social Control Critical examination through original works by Merton, Parsons, Cohen, Cloward, Matza, McHugh, Blum, and others of the two major contrasting approaches in American sociology to the theoretical explanation of delinquency and crime. Some attention will also be given to police work, corrections, and the court system.

224. Comparative Race and Group Relations An analysis of different ways of arranging relations between racial, ethnic, and religious groups in complex heterogeneous societies. Ideological, social, and psychological sources of prejudice, cooperation, and peaceful coexistence. Group identities, their subversions, manipulations, revivals, upgradings.

225. Urban Cultures and Communities Changing meanings and problems of urban life in Western civilization. The contemporary American city as a place of encounter of diverse communities and clashing cultural assumptions. The culture of urban planners. Social consequences of different architectural arrangements. Country life and suburban life as dream and nightmare.

252. Soviet Social System Social structure and dynamics of the Soviet Union. Identification of the areas of strain and the different possible directions of change. Comparison with American institutions.

332. Images of Man and Society in Western Thought Consideration of major social thinkers' conceptions of the good life and the metaphors by which they explain the relationship among persons and between persons and institutions. Some metaphors are love, the jungle, the organism, the marketplace, the stage, and the game. Readings drawn from Plato, Hobbes, Rousseau, Locke, Marx, Durkheim, Weber, Simmel, Parsons, Goffman, and others.

340. Social Change and Social Movements Key issues in the study of socio-cultural change. Dynamics of movements which have sought to promote or resist changes in society, culture, or human character. Broader processes of change that keep shaping the world of our experience. Relations of particular social movements to long-term cultural changes.

341. Class and Culture Emergence of different forms of social inequality and efforts—religious, democratic, revolutionary—to attain equality in complex societies. Influences of class position and general ideology on the formation of beliefs and ways of life. The distinctive cultures of particular classes; peasantry, aristocracy, bourgeoisie, the working class, the intelligentsia, and the techno-bureaucracy. Historical stages in the development of these classes and their national variants.

350. Comparative Social Pathology A review of both American and cross-cultural studies of the social origins of destructive and self-destructive behavior. Social institutions, social change, and cultural values as sources of damage to life, health, and sense of meaningful existence. Pathological myths. Responses to pathology.

390. Sociology Seminar A specialized seminar, intended to relate a broad area of theoretical concern to the problems and procedures of current research. Regularly offered topics: Adulthood, American Society, Bureaucracy, Art and Society, Sociology of Food and Eating, Visions of Youth, Moral Cultures, Sociology of Religion. *Prerequisite: Permission of the instructor.*

395. Senior Thesis Independent study, in consultation with a specially constituted faculty committee, of a problem area chosen by the student. The student should, in addition to pursuing his/her own interests, also seek to demonstrate how various perspectives within sociology and, where relevant, other disciplines bear on the topic chosen.

Major: nine courses, including 110; 332; a course in Sociology oriented to research methods (or Anthropology 333); five other courses, two of which may with the approval of the adviser be taken from outside of the department; and senior thesis. At least one course providing a review of and training in the methods of research in a substantive field of sociology will be offered each year.

Minor: six courses, including 110, 332, four other courses.

Spanish

The department of Spanish offers courses designed to introduce the student to the language, literature, and civilization of the Spanish and Portuguese speaking world. For those who need instruction on the elementary and intermediate levels, the courses are offered on an intensive basis with five class meetings a week. These courses as well as the ones in conversation and composition are designed to help the student in any other major who needs Spanish to complement his or her studies.

The Spanish Department is participating in a pilot project which will give students who have completed the introductory sequence of courses in Spanish and opportunity to augment their language skills by spending a month immersed in the Spanish language and culture. The program is located in Malaga, Spain on the Costa del Sol. Students accepted into this program will live with Spanish families, be assigned special tutors who are graduate students at the University of Malaga and will have daily classes with faculty from Malaga and Dickinson. Students who have completed the pilot program are expected to have increased ability to use Spanish in their reading and research skill as well as to increase their skills in oral communication.

Through advanced courses in language and literature, Spanish majors acquire a better understanding of the Hispanic culture. They are encouraged to spend time abroad and to integrate this foreign experience with the departmental program. The flexibility of this program is such that, depending upon the student's personal goals and postgraduation plans, many tracks and combinations of study are possible. Often majors will also have a second major in such areas as anthropology, sociology, international studies, psychology, economics, or another language.

Their knowledge of the Spanish language and culture can be a major asset in professional schools and many positions in business and government. Most recent graduates in Spanish are currently employed in teaching, government agencies, social work, and private business. A

number of them are now doing graduate work in Spanish, and some of them have held short-term teaching positions abroad.

Faculty:

Enrique Martinez-Vidal, Professor of Romance Languages. Ph.D., University of Pennsylvania. His teaching interests lie mainly in peninsular Studies in general and the theatre in particular. Besides his studies in the theatre of the Golden Age, his current research includes studies in Brazilian culture and civilization. He also teaches Portuguese on a tutorial basis.

Arturo A. Fox, Professor of Spanish. Ph.D., University of Minnesota. His teaching interests include Latin American culture and civilization as well as the novel and short story in Spain and Latin America. He has written many articles on diverse literary themes and also is the author of two readers. His latest one appeared in the spring of 1981. He is also an accomplished writer of novels and short stories.

Carlos Cortínez, Assistant Professor of Spanish. Ph.D., University of Iowa. A widely published scholar and creative writer, his teaching and research interests center mainly on Spanish American literature and the poetry of Pablo Neruda.

Christopher L. Anderson, Assistant Professor of Spanish. Ph.D., Indiana University. While his main teaching and research interests are 19th and 20th century Hispanic literature and culture, his participation in professional conferences also includes studies of the *Quijote* and George Orwell.

Grace L. Jarvis, Instructor of Spanish. Chairwoman. M.A., University of Missouri. Her responsibilities include the teaching and coordination of introductory language courses, and the supervision of extra and cocurricular activities sponsored by the Department. Her research interests include multi-lingual and multi-cultural education, and international education.

Roberto A. Jiménez, Instructor of Spanish. M.A., Pennsylvania State University. His literary interests center on Spanish-American literature, particularly the theatre.

Beatriz C. Quintero, Part-time Instructor of Spanish. B.A., University of Puerto Rico. She teaches introductory level courses in Spanish. Her academic interests are in the theatre of the Spanish Golden Age and in the poetry of Jose Gautier Benitez, a romantic poet from Puerto Rico.

Linda K. Parkyn, Part-time Instructor of Spanish. M.Ed., Boston State College. Her special interests are bilingual/bicultural education.

Contributing Faculty:

Associate Professor Ruhl (political science)

Courses:

101-104. Elementary Spanish An intensive study of the fundamentals of Spanish grammar, with special attention given to pronunciation and oral expression. Composition and literary and cultural readings. *Please refer to Graduation Requirements (Languages).*

116. Intermediate Spanish Review of Spanish syntax. Introduction to conversation and composition through selected cultural and literary readings. *Prerequisite: 104 or the equivalent.*

231,232. Spanish Conversation and Composition Careful attention to grammar and style as seen in short stories and articles and in compositions written on a periodical basis by the students. Advanced practice in the oral aspects of the language based on everyday situations. *Prerequisite: 116 or the equivalent, with a grade of at least C.*

241. Aspects of Spanish Civilization In-depth study of several aspects of Spanish civilization. Attitudes, values, and mores as manifested in their history and their artistic achievements. Oral and written reports concerning some cultural aspects. *Prerequisite: 231 or 232 or the equivalent.*

242. Aspects of Latin American Culture A selective study of important Latin American cultural trends and values from the pre-Columbian period to the present. Emphasis on the Latin American versions of key Western-period terms such as Renaissance, Baroque, the Enlighten-

ment, Romanticism, and avant-garde approaches and on locally generated movements such as Modernismo, Arielismo, Indigenismo, etc. Some literary selections and artistic works are selectively introduced in order to illustrate the cultural trends under study. *Prerequisite: Spanish 231 or 232 or the equivalent.*

243. Introduction to Literary Criticism in Spanish An introduction to text analysis, methods, and Spanish terminology of literary criticism. Peninsular and Spanish American texts from different periods are used as primary referents. Students are encouraged to apply the concepts learned to concrete texts. *Prerequisite: 241 or 242 or the equivalent, or 231/232 with a grade of at least B-.*

244. Survey of Spanish Literature A chronological study of Peninsular literature from the 12th till the 20th century. Trends and movements will be studied through the reading of representative authors. *Prerequisite: 243 or the equivalent.*

245. Masterpieces of Spanish-American Literature Reading and discussion of representative works of Spanish American literature from the colonial period to the present, with an emphasis on the 20th century. *Prerequisite: 243 or the equivalent.*

351. The Spanish Novel A study of representative works by the most important novelists of Spain beginning with Cervantes and including such 19th and 20th century masters of the genre as Galdós, Baroja, and Cela. *Prerequisite: 243 or 244 or the equivalent. Offered every other year.*

352. Medieval and Renaissance Spanish Literature A study of the period with emphasis on major works such as *El Poema del Cid*, *El Conde Lucanor*, *La Celestina*, *Lazarillo*, Garcilaso and the Mystics. *Prerequisite: Either 243 or 244 or the equivalent. Offered every other year.*

361. The Spanish Theatre A study of representative plays from the Golden Age to the present, with a particular emphasis on dramatic trends and influences. *Prerequisite: 243 or 244 or the equivalent. Offered every other year.*

362. Contemporary Spanish Literature A study of representative contemporary works. Special emphasis on the different trends and ideas as reflected in works by pre-Civil War authors. *Prerequisite: 243 or 244 or the equivalent.*

372. 20th Century Spanish-American Fiction Selective coverage of outstanding novels and short stories by 20th century Spanish-American writers. Analysis of some works of the 1920s and 1930s; emphasis on post-1940 fiction. Includes works by Borges, Rulfo, Cortázar, García Márquez, among others. *Prerequisite: 243 or the equivalent. Offered every other year.*

381. Topics in Hispanic Studies Study of significant cultural, literary as well as historical topics concerning the Spanish-speaking world. Peninsular and Latin-American topics alternate on a yearly basis. Some topics offered in past years were: *Latin America as a Colonial Province, Sephardic Culture and Civilization, and History and Civilization of Mexico.* Specific topics to be announced before registration. *Prerequisite: Permission of the instructor. One-half or full course.*

382. Seminar in Hispanic Literature A thorough investigation of major figures or important literary trends in Hispanic literature which was not covered by the majors in previous courses. The majors will work on a semi-independent basis with a particular instructor and will present reports to the seminar and participate in subsequent discussions. Emphasis on methods of literary research. *Prerequisite: 243, a major or minor in Spanish.*

Major: (Effective beginning with the Class of 1986). Nine courses numbered 231 and above (including 241, 242, 243, 244, and 245), at least eight of which must have been conducted in the Spanish language. Only one language skill course (i.e. 231 or 232) may be applied to the major.

For Majors Intending Off-Campus Study and Transfer Students: Regardless of the amount of transfer credit or off-campus study credit earned, a student majoring in Spanish must complete a minimum of five courses on

campus. Of these five, at least two regular courses should be completed during the senior year. The student is responsible for scheduling coursework or independent study which will cover those masterpieces of Spanish and Spanish American literature which have been specified by the department. A complete list of these masterpieces and the courses which cover them may be obtained from the department. In case of not being able to fulfill this requirement, the student has the option to take a comprehensive examination during the senior year. This examination will satisfy the senior year requirement but will not affect the number or selection of courses required for the major.

Minor: Five courses numbered 231 or above, including 231 or 232, either of which may be waived by special permission of the department.

Portuguese

Portuguese is offered by the department only on a tutorial basis and only to Spanish majors or minors, as well as to students working towards a Certificate in Latin American Studies. The latter students, if not Spanish majors or minors, can only request an independent study in Portuguese after having successfully finished Spanish 116 or its equivalent.

Courses taught on a tutorial basis:

501. Portuguese I. Elementary An intensive study of the fundamentals of Portuguese grammar. Composition and literary and cultural readings.

502. Portuguese II. Intermediate Review of Portuguese syntax. Conversation and composition through selected cultural and literary readings.

503. Portuguese III. Conversation and Composition Advanced practice in the written and oral aspects of the language through selected readings.

504. Brazilian Culture and Civilization A study of several aspects of the culture of Brazil from Colonial times to the present.

Studies in Theatre and Dramatic Literature

Professor Brubaker, (dramatic arts) Director

An interdisciplinary program using the perspectives of the dramatic arts and literature to examine the theory, history, and practice of theatre presented by the departments of classical studies, dramatic arts, English, modern languages and literature, and music. Majors in this field are required to participate in the Mermaid Players and must be accepted by the director.

Major: ten courses including Dramatic Arts 102 and 103 (Theatre History); two of the following: Dramatic Arts 201 (Acting), 200 (Stagecraft), 301 (Directing); and six of the following, one of which shall be from classical studies or modern languages and literature and one shall be a course dealing with the Renaissance period:

Classical Studies

Greek

391,392 Seminar: Greek Drama

Latin

234 Latin Poetry

Dramatic Arts

101 The Medium of Movement

102,103 Theatre History

200 Stagecraft

Acting

301 Special Topics in Performance and Production

304 Studies in Theatre History

Directing

English

342 Renaissance English Drama

346 Shakespeare I

347 Shakespeare II

388 American Drama

396 Modern Drama I

397 Modern Drama II

Modern Languages and Literature

French

352 The Theatre of the Sublime

360 Modern French Theatre

German

304 German Literature of the Baroque, Rationalism and Sturm und Drang

309 The Drama of the 19th Century

313 Modern German Drama

Russian

390 Russian Drama

Spanish

361 The Spanish Theatre

Music

103 20th Century Music

104 History of Opera

Independent Studies

There are occasional seminars offered by the several departments in topics appropriate to this field of concentration which would extend the list given above.

No Minor.



Special Approaches to Study

Tutorial Study

Independent Study and Research
Candidacy for Departmental Honors
Integrated Independent Study/Research
Internships
Special Majors

Independent research and study, internships, special majors, and tutorial study encourage Dickinson students to pursue individual academic interests and allow students with the requisite ability and motivation to undertake more self-directed programs of study under faculty guidance.

Tutorial Study, Independent Study and Research

The following options describe programs of tutorial study, independent study and research possible in any academic area in which faculty have training and in which the student has the approval of the appropriate department or coordinating faculty committee. These general guidelines may vary among individual programs.

Tutorial Study

Tutorial study is occasionally approved for students who, by agreement with the instructor, have the need to take a course listed in the catalogue on a one to one or limited enrollment basis. Such a need might be justified in the case of a course which is offered only on an alternate year basis or at some other frequency which would not allow for the completion of the student's program. Approved tutorial studies are registered for during the normal add/drop period in the Office of the Registrar.

Independent Study and Research for Freshmen. Freshmen who, on the basis of advanced placement, have qualified for credit in an introductory course (except foreign language courses

below 230 and such other courses as may be designated by the departments) and desire to work more extensively at the survey or principles level of a discipline may enroll for a tutorially-directed course or half-course in independent study within the same body of knowledge.

A freshman who wishes to take a second independent study or a course of independent study or research on terms available to sophomores, juniors, and seniors, must petition the Committee on Academic Program, with supporting statements from the academic adviser and proposed supervisory instructor.

Independent Study for Sophomores, Juniors, and Seniors. Independent studies allow a student to pursue an academic interest outside the listed course offerings. The study may include experimental work and reading and may culminate in several short papers, a single paper, or any other project acceptable to the supervising faculty member and the student. The work may be supervised by one instructor or several instructors from one department or several departments. Such interdepartmental studies must be approved beforehand by the Committee on Academic Program. Sophomores may undertake one study or one independent research course and may, with the support of the student's academic adviser, petition the Committee on Academic Program for permission to take two independent studies or independent research courses in one semester. Juniors and seniors may undertake two such courses without special approval and may petition the Committee on Academic Program for additional independent study or research courses. In addition, the student must have a cumulative average of 2.0 or the permission of the Committee on Academic Standards.

Independent Research for Sophomores, Juniors and Seniors. Independent research, like independent study, allows a student to pursue an academic interest beyond the listed course offerings, but this pursuit must culminate in an original contribution to a discipline, whether in the form of fully-supported conclusions or in the form of a creative effort. Although supervised by faculty from one department or several depart-

ments, the work is to be largely self-initiated and self-directed—an introduction into research and practice in presenting the results of an investigation. Conclusions must be presented for evaluation no later than one (1) month prior to the student's graduation. The program may be elected (maximum credit: four full courses per semester) for the junior year, the senior year, or both. Sophomores may undertake one independent research course per semester unless permission is granted by the Committee on Academic Program to take two such course credits on the basis of a petition supported by the student's academic adviser. In order to register for the program, special permission is required from the Committee on Academic Standards for students with less than a 3.0 average in the department or departments supervising the independent research. Programs of independent research involving more than two such courses per semester must be approved by the Committee on Academic Program. Interdepartmental research must be supervised jointly by the respective faculty members and must also be approved by the Committee on Academic Program.

Candidacy for Departmental Honors. Students participating in the independent research program described above shall be eligible to be voted departmental honors on the completion of the program. In assessing each candidate, the departments may conduct comprehensive examinations or may invite outside examiners. If, in the judgment of the department, a candidate meets the standards for graduation with honors, the project shall be so designated.

Integrated Independent Study and/or Independent Research for Juniors and Seniors. This provision allows a student, with the guidance of his or her major department and any supporting departments, to plan an entire program either for the last two years of study or for the senior year. The program, which must be approved by the Committee on Academic Program, may combine independent study, independent research, and course participation. Work under the program normally proceeds without grade, but, upon the student's completing the plan, the

supervising department will prepare a precise description of the work accomplished and an evaluation of its quality which will become part of the student's permanent record.

Internships

An internship is a special field program integrated with an academic component by which a student may test the practical applications of liberal learning in any of a variety of professional or occupational settings, on or off campus. Through an internship a student has the opportunity to explore the interrelationship between an academic subject and some area where it has practical application or relevance. This experience also provides a way to explore possible career choices while still in college.

Normally open only to juniors and seniors, internships are initiated by the student and must be approved in advance by the internship coordinators. A faculty internship adviser helps the student develop the broader theoretical framework or perspective in which the field work is to be analyzed, assumes overall responsibility for the internship in progress, and reports the grade of Credit or No Credit at its conclusion. Each internship is assigned from .5 to 2 course credits, based upon the nature and complexity of the integrated internship project. A student may receive a maximum of two internship course credits in a given semester or summer, and normally no more than four in a given academic year. No more than two internship credits may be counted toward a minor. January internships receive a maximum of .5 course credit. Permission for a given student to do more than two internships involves a special approval process beyond the approval of the third internship itself, so students considering this possibility should begin their planning and consult an internship coordinator very early in the preceding semester.

To apply for an internship a student, after consultation with one of the internship coordinators, a faculty internship adviser, and the intended on-site supervisor, must complete an Internship Agreement Form describing in detail the on-site project and the related theoretical work, the educational objectives of the intern-

ship, the student's relevant academic preparation, the bibliography of works to be read before and during the internship, and the evidence that the faculty internship adviser will evaluate to determine the grade. The faculty internship adviser and the on-site supervisor also complete parts of the Agreement Form in which their respective expectations are delineated. In addition, the student must secure the signature of his/her regular academic adviser(s) and, if the internship is to count towards a major or minor, of the appropriate department chairperson. Completed Agreement Forms must then be submitted to the Internship Office for final approval by both coordinators, after which the Internship Office assumes responsibility for registering the internship.

At the completion of the internship and before credit will be granted, the student must complete and submit to the internship coordinators a Student Internship Evaluation Form, in which the student reviews the original objectives and proposed activities as stated in the Internship Agreement Form, describes how they were achieved or modified in the course of the internship, and evaluates in some detail the practical and theoretical aspects of the experience. Post-internship evaluation forms are also requested from the faculty internship adviser and the on-site supervisor.

Detailed information about internships, advice in planning, and all necessary forms are available in the Internship Office. Dr. Marjorie Fitzpatrick is the administrative coordinator for the internship program.

Special Majors

Tutorial Departmental Major. Some departments may approve superior students as tutorial majors. Such a program differs from independent studies and research in several ways. For one, the student is guided in a program in the component areas of an entire discipline for approximately two years. That program's balance is ensured by prior departmental approval. Secondly, the student is free to take regular courses in the student's major discipline with the approval of the tutor. Normally the student will receive a letter grade for a 600 series course, but

the Pass/Fail option is also available under the same restrictions as in standard courses.

The student meets on a regular basis with a tutor to discuss essays and readings dealing with particular problems posed by the tutor. Finally, the student sits for a comprehensive examination, both written and oral, administered by a committee composed of the department and one person outside the department. Normally, at least one-quarter of the student's final semester is given over to preparation for these examinations. One reexamination may be permitted within the calendar year. Students will be graded on the examination as having passed, failed, or passed with departmental honors. Approved students may register for up to four courses per semester under the tutorial rubric.

The Self-Developed Interdisciplinary Major. The Dickinson College faculty represents in its members a diverse set of interests and perspectives that provides a considerable resource for those students who would like to develop a major around concerns that do not fall into traditional disciplinary areas. The option of a self-developed major is available to students who desire a somewhat different field of concentration which, although a recognized field of learning and relevant to the liberal arts, is not substantially addressed by any one department. Recent self-developed majors have included Women's Studies, Medieval Studies, Environmental Science, and Black Studies.

Because of the special significance of Ethnic Studies and Minority Studies to students and faculty alike, students are encouraged to consider these areas for the development of self-developed majors (e.g. Afro-American Studies, Hispanic Studies). The knowledge gained from being educated about and in the midst of the diversity of ethnic and minority groups in the world can only broaden the perspective of all those involved in the process.

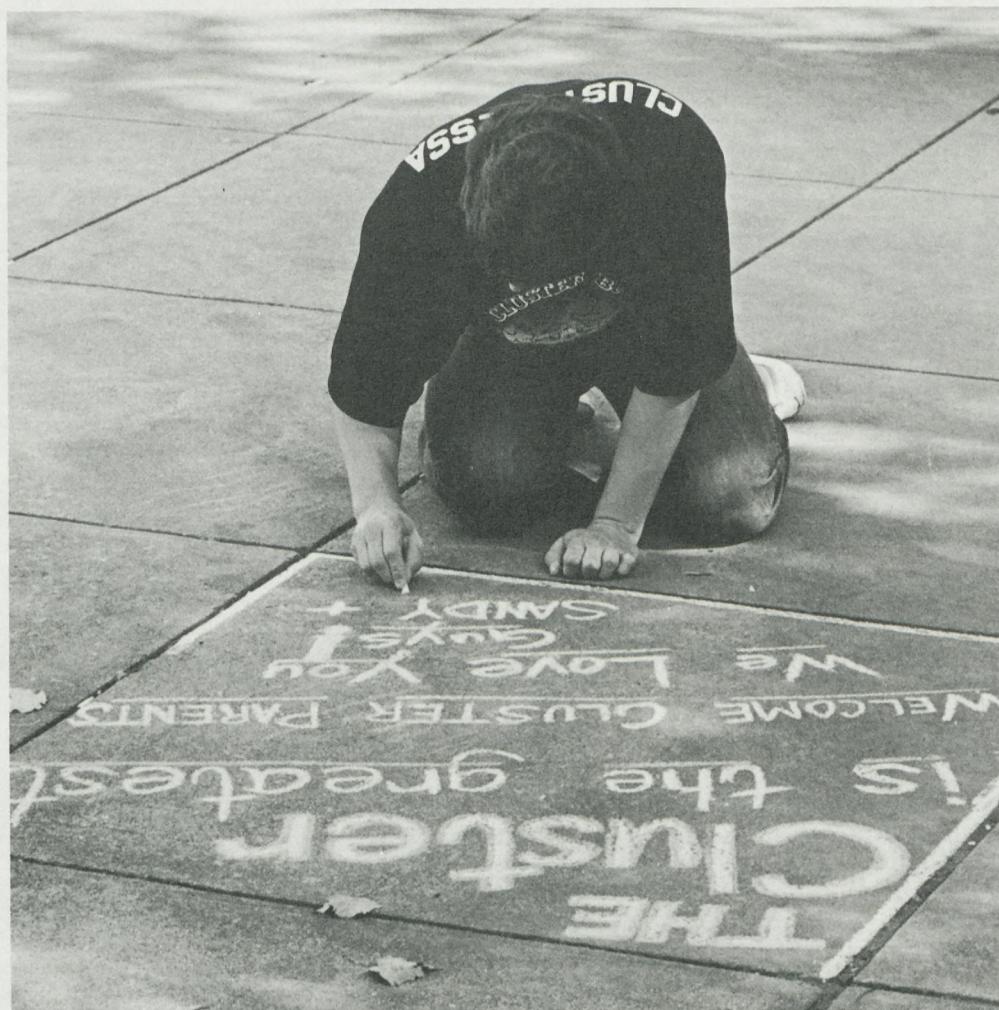
A student contemplating a self-developed major should prepare a proposal which includes those courses relevant to the other topic and seek the written endorsement of four faculty members for the proposed major which shall consist of ten or more courses. The supporting faculty will secure the advice of chairmen of

those departments in which the student contemplates course work for concentration.

The student must present this validated proposal to the Committee on Academic Program for approval by the Subcommittee on the Self-Developed Major. The student in this program will work closely with an appointed adviser. Changes desired in this program will be submitted with the approval of the adviser in written form to the subcommittee for final approval. Under ordinary circumstances, a student accepted in a self-developed major may not apply any of the ten approved courses toward the completion of a departmental major or minor.

Upon the completion of every semester, each student involved in the self-developed major will submit to the subcommittee (with a copy to the adviser) an evaluation statement of progress and commitment to the major as a whole, experience in individual courses, and work with the adviser. The adviser will submit to the subcommittee, and to the student an evaluation describing the student's progress, achievement, and commitment.

At the conclusion of the student's work the transcript will describe the major as follows: Self-Developed Major: (Title).



Special Programs

Study Abroad

Off-Campus Study in the United States
Binary Engineering
Consortium Exchange
Harrisburg Urban Semester
Washington Semester

International Education

In an era characterized by increasing global interdependence, the College recognizes its responsibility to maximize global perspectives in its educational programs so that students may gain the international understanding necessary to be informed citizens and world leaders. In its on-campus academic offerings, courses with an international focus are offered in several departments. In addition, global perspectives and intercultural sensitivities are stressed in other ways, including the comparative civilizations program, the program in foreign languages with its required level of proficiency and emphases on literature and culture, double majors which combine language skills with study in other disciplines, and interdisciplinary area study programs in Western Europe, Asia, Latin America, and the Soviet Union. The Committee on International Education consists of faculty representing the foreign area study programs, international relations, and the foreign language and literature departments. They meet with the director of off-campus studies to coordinate the College's activities that focus upon international education and to advise the College upon the scope and direction of international education.

The College also encourages its students to investigate the appropriateness of study abroad to their educational objectives. When carefully planned in advance and integrated with a student's on-campus academic program, study abroad can be an integral part of the liberal arts experience providing cultural enrichment, personal development, and intellectual challenge. Study abroad is coordinated through the office of off-campus studies and may take place during

an academic year, a semester, a January term, or a summer term. Approximately one-fourth of all Dickinson students study overseas for at least one semester before they graduate.

The following pages present study-abroad opportunities with which Dickinson is formally associated. Many other high quality opportunities are also available; information can be obtained in the office of off-campus studies.

The Center for European Studies in Bologna.

Students interested in a junior or senior year abroad to study European politics, history, economics, and international affairs may apply for admission to the College's program in Bologna, Italy, which was established in 1965. The program is supervised by a resident director drawn from the College's faculty and includes courses in the following areas: European History and Politics, International Studies, History of European Political and Social Thought, International Economics, Renaissance Art, and Italian Language. A unique offering is the Bologna Practicum, an interdisciplinary seminar. (See Interdisciplinary Studies in the course offering section.) Courses are taught in English by the Dickinson director and faculty members from Italian universities and the Johns Hopkins School of Advanced International Studies. Opportunities are also available for independent study with the Dickinson and Johns Hopkins instructors.

Twenty-five students are selected each year for study at the Dickinson Center. No particular major is a prerequisite. Participants who have not had one semester of Italian previously will be required to take Elementary Italian in Bologna. Financial aid, including work-study opportunities, may be applied for through the customary procedures followed on campus.

The Dickinson College Study Center in Toulouse

Students interested in study in all areas of the liberal arts and who have a good mastery of the French language, normally indicated by the completion of French 233, Introduction to French Literature, may apply to the college program in Toulouse. The program is supervised by

a resident director drawn from the college's faculty and offers integrated study in French Language, Literature and Society, Intercultural Communication and Fine Arts. (See specific course offerings listed under the French Department offerings.) In addition, students are able to enroll directly in courses offered at the University of Toulouse in subjects in the Humanities, Social Sciences, and Natural Sciences. Beginning with the 1985-86 academic year, students will also be able to conduct internships in both the public and private sectors in the Toulouse area. All course work will be conducted in French.

Students may apply either for year long or for a single semester of study in Toulouse. Inquiries should be made of the French Department. Financial aid, including work-study opportunities, may be applied for through the customary procedures followed on campus.

The Dickinson College in Bremen Program

Students interested in all areas of the liberal arts and who have a good mastery of the German language may apply to the college program in Bremen. The program is supervised by a resident director who may come from either the Dickinson College or Bremen University faculty and who will be responsible for serving as an academic adviser to the students, will supervise their orientation to their year of study in Bremen, and will arrange for special individualized tutoring for the students. Students will be enrolled in courses at the University of Bremen and must expect that all work will be conducted in German.

Students may apply only for a year's study in Bremen. Inquiries should be made of the German Department. Financial aid may be applied for through the customary procedures followed on campus.

Dickinson College Pilot Projects in Language Immersion

During the summer of 1984, Dickinson College, with support from the National Endowment for the Humanities, will initiate the first of its pilot projects in language immersion. These programs will encourage students to augment

their required foreign language study by spending a month in a country in which that language is spoken. Students will be expected to depend almost entirely upon the foreign language as their means of communication in order to increase their language proficiency and their motivation to use the language further. The first modern language programs will be offered in Bremen, Germany; Malaga, Spain; and Bologna, Italy. Subsequently, modern language programs will be offered in Toulouse, France and in Russia. The Classical Language Program will be located in Rome and Naples and will aim to train the eyes of students to appreciate the world once created by the Latin language.

The Institute of European Studies. The Institute of European Studies offers study programs for juniors and seniors at seven leading European university centers (Durham, Freiburg, London, Madrid, Nantes, Paris, Vienna) and Mexico City, each one offering unique perspectives and opportunities utilizing the particular academic and cultural resources of its location. Under the supervision of a permanent resident director, each center offers its own particular academic programs, experienced academic advisers accustomed to dealing with the difficulties in integrating a student's foreign study program with that of the home institution, and a full range of supportive services: housing, university registration, personal counseling, medical care, student activities, records, and the like.

The institute also provides orientation programs including intensive language study where appropriate. Students study under distinguished European professors in a European environment. The Freiburg, London, Madrid, Nantes, Paris, and Vienna centers offer a core of courses taught within the institute by university professors and, except for London, also enable qualified students to enroll in regular courses within the faculties of the universities themselves. At Durham, students enroll as fully integrated students of the university, and the institute provides tutorial assistance supplementing their university course work whenever appropriate. The Mexico City students take both Institute courses taught by university professors and enroll in

local university courses. Students are recommended for admission by the College. Limited financial assistance is offered. For further information, consult the campus coordinator.

The Intercollegiate Center for Classical Studies in Rome. Majors in Latin or Greek, or other students especially interested in classical antiquity, can spend one or two semesters at the Intercollegiate Center for Classical Studies in Rome. This center features the combination of carefully chosen master teachers from American colleges and universities with the irreplaceable glory of the sites of the classical past. Dickinson students are eligible for scholarships to the center. The Dickinson classics department also manages the Christopher Lee Roberts Scholarship which may be used for a semester at the center. Field trips from the center in Rome are part of every semester's work, concentrating on the Etruscan north in the fall term and the Naples area in the spring. At the same time, in the middle of Rome itself, classes in the Latin and Greek texts allow the student to complete the same reading that would have been done at the home campus.

The International Student Exchange Program. The International Student Exchange Program (ISEP) is a fully reciprocal student exchange scheme which facilitates and encourages the regular exchange of students on a one-to-one basis between participating colleges and universities in approximately 35 countries in Africa, Asia, Australia, Europe, Latin America, and North America. Dickinson is one of several U.S. institutions selected to participate in ISEP. Through ISEP, Dickinson students pay tuition and fees, room and board to Dickinson and exchange places for one academic year with students from participating institutions outside the U.S. who likewise have covered the cost of their tuition and other expenses. This exchange opportunity allows Dickinson students to study outside their country for the same cost that they would pay here. They remain registered at Dickinson and may apply whatever financial aid they normally receive toward the year abroad.

Students interested in ISEP are screened and selected by Dickinson. They must have proven

their ability to produce high-level academic work and be proficient in the language of instruction of the institution for which they are applying. Applicants from all academic disciplines are considered. ISEP students are fully integrated, academically and socially, at the host college or university abroad; they take the same courses and examinations as all other students at that institution. Housing is guaranteed, either in residence halls or in accommodations nearby.

Dickinson Summer Abroad Programs

Dickinson regularly conducts three foreign study programs during the summer term, two in Great Britain and one in France.

The Roman Britain Program, under the direction of the classics department, examines the Roman occupation of Britain from Julius Caesar to Honorius with special emphasis on the archaeological remains of the occupation. During the six-week program the students participate in a training dig designed to teach persons without previous experience the techniques of archaeology. In addition to studying the fundamentals of archaeology and the history of Roman Britain, students visit the major Roman sites throughout Britain.

The Summer Semester in England program offers students with an interest in fine arts, English history, history of science, and theatre the opportunity to pursue study in England. During the first half of the summer the program is centered in London and offers two courses which draw upon the libraries, museums, galleries, architecture, and cultural life of that city. During the second half of the summer two courses are offered which pursue topics best studied through travel and study throughout the British Isles.

Dickinson in France is conducted each summer in Nantes, a port city in Britanny, and offers an intensive program combining formal study with direct experience in French culture and language. During the six-week program, Dickinson faculty conduct courses in intermediate French, conversation and composition, and French civilization. This study is augmented by travel in other parts of France including Paris, and by the

students' experience living as members of French families. The Dickinson faculty are provided administrative assistance by staff members of the Institute of European Studies.

In addition to these programs, other faculty plan special summer travel study courses on a less regular basis.

Other Study Abroad Programs. Other study abroad programs are available throughout the world. Students may be able to enroll directly in a foreign university, in specialized courses and institutes for foreigners at leading universities abroad, in internships overseas, or in American college-sponsored programs designed to meet the needs of American students who wish to pursue their educational interests in another part of the world. Recent Dickinson students have studied for an academic year, a semester, or a summer in Austria, Belgium, Canada, Colombia, Denmark, England, France, Ghana, Greece, Hong Kong, People's Republic of China, India, Ireland, Israel, Italy, Mexico, Nepal, the Netherlands, Peru, Scotland, Senegal, South Africa, the Soviet Union, Spain, Sweden, Switzerland, Wales, West Germany and Yugoslavia. The office of off-campus studies has more information on programs and procedures.

Off-Campus Study in the United States

An academic year, semester, summer, or January term of study at a specialized program or other college or university in the United States may be appropriate for some students. Like study abroad, this form of off-campus study must be carefully planned and integrated with the student's on-campus academic program. Several institutions offer specialized unusual learning opportunities and environments unavailable at Dickinson, utilizing unique resources which cannot be duplicated within the traditional on-campus classroom setting. Examples are programs which focus on topics and areas such as marine biology, the United Nations, or New England studies.

Dickinson students have also taken advantage of guest student programs at major colleges and universities which permit students to enroll for a semester or the academic year in regular curri-

cular offerings of the institution which are unavailable on the Dickinson campus. Dickinson students have recently studied elsewhere in the following academic area: black studies, Chinese, East-West comparative cultures, journalism, public communications, urban studies, women studies, archaeology, aviation, urban planning, business, drama, ecology, studio art, Japanese, and law.

The following pages present off-campus learning opportunities in the United States with which Dickinson is formally associated. Information on these and other specialized programs of study is available in the office of off-campus studies.

The Appalachian Semester Program. The Appalachian Program is a one-semester experience located in the heart of Appalachia at Union College, Barbourville, Kentucky. Offered every semester, it is open to juniors and seniors interested in studying the Appalachian region — its strengths, problems, and challenges. The program is strongly interdisciplinary in nature and includes three courses plus credit for field work in a variety of disciplines. The Appalachian Semester Program is open to students of all majors and is particularly recommended for undergraduates who want to explore in depth the Appalachian region and its people and also those students who plan to enter a variety of service-oriented occupations. For more information consult the director of off-campus studies.

Asian Studies: South or East Asia. By informal arrangement with the University of Pennsylvania, well-qualified, highly motivated Dickinson students may elect to spend a summer, a semester, or a full academic year (normally the senior year) studying in the Department of South Asian Studies or the Department of Oriental Studies at the University of Pennsylvania. Such election shall be contingent upon recommendation by the student's major department at Dickinson, approval of the director of off-campus studies, and acceptance by either department at the University of Pennsylvania. Seniors completing the requirements for the Bachelor of Arts degree at Dickinson who are in residence at the Univer-

sity of Pennsylvania during the entire senior year are exempt from the Dickinson senior residence requirements.

A student planning such a senior year program normally should expect to enroll for intensive language study during the summer prior to the senior year at the University of Pennsylvania. If recommended for graduate study in the same field by the department in which the student is enrolled, the student should anticipate further intensive language study during the summer immediately following completion of the senior year. Majors in either South or East Asian area studies are to be pursued in accordance with the provisions of the College for self-developed majors worked out by the student in conjunction with the Committee on Academic Program.

The Binary Engineering Program. Dickinson College furnishes a program for engineering students, called the Binary Engineering Program, that combines advantages of the small liberal arts college with training to be secured at a large urban engineering school. Cooperating with Dickinson College in this program are the University of Pennsylvania engineering schools, Rensselaer Polytechnic Institute, and the Case Institute of Technology. The student can select one of several options under the plan: the first three years may be spent at Dickinson and the final two at the engineering school, leading to a B.S. degree from both institutions; or four years may be spent at Dickinson earning a B.S. degree and then one or two years at the engineering school leading to an M.S. degree in engineering.

The liberal arts-engineering combination recognizes the defects inherent in specialization in the engineering schools and provides for the Dickinson student a generous background in pure science, in the humanities, and in the social sciences. The program is particularly appealing to those freshmen who like the liberal arts and are not yet willing to commit themselves completely to an engineering curriculum.

Candidates for the Binary Engineering Program should inform the director of admissions of Dickinson College that they wish to apply for this program so that they may be assigned to the

engineering student adviser. The student in the freshmen year should take Physics 131, 132 and Mathematics 161, 162. Students interested in this program should request from the Dickinson admissions office a special booklet which describes the Binary Engineering Plan in greater detail and gives suggested course schedules.

The Consortium Exchange Program. Dickinson, Franklin and Marshall, and Gettysburg Colleges form the Central Pennsylvania Consortium. One of the advantages of this educational cooperative venture is that students have the opportunity to take courses at any member college. This program of exchange is encouraged because it allows for greater flexibility in a student's educational program.

The office of off-campus studies coordinates consortium exchange programs for students. The appropriate forms, catalogues, and other information are available there. The application procedure is rather simple with only an application form and a course approval form necessary. Applications should be submitted to that office by May 1 for a Fall Semester, and December 1 for a Spring Semester.

Any Dickinson student who is approved by this College for study at Franklin and Marshall or Gettysburg College, may take a course, several courses, a full semester, or a full year at the other college. Except for summer and January programs at the other colleges, the normal tuition fee is paid to Dickinson. No fees are paid to the other college except residence fees where appropriate. Grades, in addition to course credit, are transferred into this college.

The Harrisburg Urban Semester. The Harrisburg Urban Semester (THUS) is a multi-disciplinary academic program combining an internship, course work, and independent study in an urban setting. Sponsored by the Central Pennsylvania Consortium, the program combines the study of urban affairs with internship opportunities in which students may explore career possibilities and test classroom theories in actual practical experiences.

Student participants spend either the fall or the spring term in houses and apartments in Harrisburg which are leased by THUS. The

program is designed as a four-course experience, including an internship, an urban seminar, and either a special interest seminar or an independent study relevant to the internship and directed by an on-campus faculty member. The course and internship structure is designed for students from all departmental backgrounds. Students who wish to deviate from the four-course program must have the approval of the director of off-campus studies.

Financial aid is available for Dickinson students.

THUS Courses: Not Offered in 1984-1985.

301, 302. Urban Semester Internship (2 course credits). Each student will intern on a 20- to 25-hour-per-week basis with a public or private agency. Internships are available in federal, state, county, city, private secular, and private religious agencies. The internship is intended to accommodate the vocational, educational, and personal goals of the individual participant. (NOTE: One of the internship course grades will be on a Credit/No Credit basis, while the other internship course will receive a regular letter grade.)

305. Urban Semester Urban Seminar (One course). This multi-disciplinary seminar taught by THUS faculty focuses on the nature and problems of urban society. In addition to comprehensive reading assignments, source materials may be provided by selected urban professionals, community leaders, and concerned urban citizens, who will be present at some of the classroom sessions. Further, the seminar will bring together the various urban perspectives of the students which have developed through their internship experience.

306, 307. Urban Semester Special Interest (One course). Each semester several special topics will be treated in a seminar format. Topics are selected with regard to the general internship interests of student participants and each student may select that seminar group which is treating the topic of greatest relevance to the student.

The Washington Semester Programs. In cooperation with the American University and an allied group of colleges and universities, Dickin-

son offers to a few high-ranking students (usually juniors) the opportunity to participate in one of several academic programs sponsored by the American University in Washington, D.C.

The one-semester opportunities are American national government and politics, foreign policy, economic policy, urban affairs, justice, arts and humanities, journalism and public administration.

The usual course of study includes a seminar in which the student has an opportunity to listen to and question government officials from all levels, Supreme Court Justices to lower level bureaucrats. In addition, the program requires a substantial independent research paper. There is also the opportunity to serve in an internship with an office on Capitol Hill, such as in an agency, a lobby organization, or another course-related office. As an alternative to such an internship, the student may elect a regular course offered by the university.

Dickinson students are eligible to participate in the fall semester. They should consult with the Dickinson coordinator early in their academic career to receive further details on the programs and on courses which may be required as prerequisite to admission.

Academic Resources

Library
Computer Services
Writing Center
Audio Visual Services
Fine Arts Gallery
Observatory
Planetarium
Wildlife Sanctuary

The Boyd Lee Spahr Library

The primary mission of the library is to support the liberal arts program of Dickinson College. To this end, the librarians have a twofold responsibility: to build and organize a library collection excellent in quality and quantity and to provide the best possible service to Dickinson faculty and students as they engage in the teaching/learning process.

The Boyd Lee Spahr Library, built in 1967, houses a collection of 365,000 volumes, including 80,000 government documents, 1500 periodical subscriptions, 6500 sound recordings, and 122,000 microforms. Open during the academic term for 103 hours a week, the library provides seating for 800, including honors carrels for students pursuing independent study. Stack areas with study spaces interspersed are located on the upper and lower levels. Reference and audiovisual areas are on the first floor. The Alexander Sharp Room on the first floor and the Alvah A. Wallace Lounge on the second floor provide attractive, comfortable study areas as well. The Morris Room on the second floor houses the library's Special Collections, its rare books, manuscripts, and the College Archives. The Morris Room serves as a laboratory for students in a variety of courses with research projects involving primary sources.

The services of the library are many and varied. In order to enable students to find the materials they need and to use them effectively, instruction in library use is a primary concern and is provided upon request in the library and in many classes. Librarians provide assistance at

the reference desk every week day, Sundays, and most evenings. The Interlibrary Loan Service, provided through a computer network, provides access to library collections nationwide. The audiovisual service provides space and equipment for listening to the record and cassette collection and for viewing and printing copies of the extensive microform collection. Two photocopiers are available for student use on the first floor and a late night study in the basement is open during exam time. The data base search service, offering computer searching of many thousands of journals, government documents, and other printed materials, is available to faculty and to students doing honors and independent study. Currently the library is working on a major project to provide improved access to its own holdings through the use of computers.

The library is a member of OCLC, Online Computer Library Center, Inc.; Palinet, the Pennsylvania Library network; and ACLCP, the Area College Library Cooperative Program, all of which enhance the library's ability to provide access to the universe of information available to and needed by undergraduate students today.

The Computer Center

The Computer Center is located in South College with terminals scattered throughout campus. Several clusters of terminals are designed for student use. Printers are also easily accessible. Plans are being made to make microcomputers more widely available to students.

The primary computer systems are the Digital Equipment Corporation PDP-11/70 and the VAX-11/780, each with mass storage devices of large capacity disk drives and a magnetic tape unit. These computers are linked together to provide greater benefits for all computer users. The languages available include Pascal, BASIC, FORTRAN, and COBOL. All users have a wide choice of utility programs such as text editors, a batch processing facility, computer games, and an electronic mail system.

Many programs have been acquired and developed under the guidance of the Office of Academic Computing. These range from specialized tutorials for language and basic skill instruction to very sophisticated analysis pro-

grams designed to examine data and provide complete statistical results. Currently, the center supports SPSS Statistical Package for Social Sciences., BMD (Bio-Medical Package), and Minitab (Mini-statistical Tablution), three of the most widely used statistical analysis packages available on the computing market today. The area of academic computing also provides short-term miniclasses, individualized class instruction, and consulting services.

Students may obtain access to the computer without enrolling in a computer course. During the academic year, most students use the computer system. Students who have demonstrated competency in computer use and programming may apply for part-time jobs as consultants to computer users, data entry assistants, or student programmers. Depending upon ability and interest it is possible for students to become involved in significant program development which can provide valuable education experiences. For example, students are currently involved in converting the library's card catalog to a computer based data bank, the largest project to be implemented with the VAX.

The Writing Center

The Writing Center reflects Dickinson's commitment to educating students in essential communications skills. It makes peer tutoring available to all students who seek help with academic papers, lab reports, letter of application, and other college-related writing. Trained and supervised by faculty, tutors offer nonthreatening individual instruction in a range of writing skills from organization of ideas to proper spelling. Closely linked to Freshman Seminars, the center provides special support for freshmen who are in the process of acclimating themselves to the demands of college. It also gives all students the chance to polish their grammar and punctuation through individual instruction, printed exercises, and self-paced computer programs.

In addition to Freshman Seminars, three different levels of courses provide formal classroom instruction in writing (see English Department). Students can put their writing skills to use in a variety of cocurricular activities including the

college newspaper *The Dickinsonian*; the literary magazine, *The Belles Lettres Review*; and the yearbook, *The Microcosm*.

The Instructional Media Center

The Instructional Media Center, located in Bosler hall, is home to a campus organization that supports teaching. Services available at the center include the making and duplicating of cassette tapes, ordering and previewing of films and videotapes, slide making, video production, mounting of photos and posters, the loan of equipment, help with using audiovisual materials, and a variety of other, less common services. The center also houses the College's new language laboratory.

Outside the center, instructional media personnel show films, run the lighting, sound and other theatrical systems of Anita Tuvin Schlechter Auditorium, deliver and pick up equipment.

The center provides employment for approximately a dozen students, who are the mainstay of its operation. Student supervisors insure that events take place when and as scheduled.

The Trout Gallery

The Trout Gallery is a bi-level exhibition facility located in the new Emil R. Weiss Center for the Arts. Along with housing the College's permanent collections of art—which range in time from Classical Greece to the 20th Century—the Trout Gallery maintains a varied and frequently changing exhibition schedule of avant-garde as well as historically important works of art.

The gallery is used directly as a teaching aid in studio and art history courses, and gallery internships are offered to superior fine arts students.

Observatory

The Bonisteel-Yeagley Multiple Telescope Observatory is housed in Althouse Science Hall. The Observatory is extensively used in introductory courses, equipped with a 14-inch Celestron and an assortment of other telescopes. Recent observatory projects have included the design and construction of a radio telescope, observa-

tion of variable stars, and astrophotography of the moon, planets, stars, nebulae, and galaxies.

Planetarium

The Roscoe O. Bonisteel Planetarium is housed in Tome Scientific Building. Planetarium programs are produced with substantial student participation for both the college community, local schools, and the general public. Recent shows include a program commemorating the birth of Albert Einstein 100 years ago, a program exploring the connection of Mayan civilization with the heavens, a program celebrating our first steps into space, a program surveying the historical projection of science fiction into the sky and a variety of programs summarizing recent astronomical developments such as planetary probes exploring the solar system. Typically attendance at the 20 to 40 shows each year is over a thousand people.

Wildlife Sanctuary

The Florence Jones Reineman Wildlife Sanctuary (FJRWS) is located in south central Pennsylvania about 10 miles northwest of the city of Carlisle. The sanctuary includes part of the north slope and valley below the Blue Mountain (Appalachian Mountain Chain) of Pennsylvania. The 3200 acre area exhibits a climax vegetation of oak (chestnut, red, white). Parts of the sanctuary were selectively logged in the early 1950s, but most of the area has never been clear-cut or farmed. Between 1100 and 1300 feet elevation, 13 streams have their sources. The streams feed the Green Valley Run which flows eastward and out of the sanctuary.

The Girard Trust Bank and J. Welles Henderson are trustees of the FJRWS. It is operated under an agreement with the trustees by Dickinson College (Carlisle, Pennsylvania). The sanctuary owes its existence to Florence Waring Erdman of Philadelphia. Erdman cultivated a keen interest in natural history. She died in 1960 and designated in her will that a portion of her estate be used to establish a wildlife sanctuary (within the limits of the continental United States) as a perpetual memorial to her mother, Florence Jones Reineman (1864-1949). After visiting many sites, the trustees selected and purchased a

3100 acre tract of land in Perry County, Pennsylvania. It became the FJRWS in 1966. The acreage of the sanctuary was increased to 3200 in the late 1960s primarily by the addition of a large tract of land known as the Sloop Farm. In 1967 the FJRWS was designated a Registered Natural Landmark.

Construction of a field station, a modern facility with ample space for preliminary study of specimens, modern restrooms, kitchen facilities, and meeting room (loft) followed shortly after the sanctuary was established. Camping is not permitted at the sanctuary, but there is a nearby private campground.

Use of the sanctuary for research and education is encouraged. Vertebrates cannot be collected at the sanctuary, but other research activities which do not cause unwarranted alteration of the habitat will ordinarily fall within the guidelines for prescribed uses.

Applications for the use of the Florence Jones Reineman Wildlife Sanctuary may be obtained by writing to the director.

Academic Policies and Procedures

Information For Students Who Are Enrolled For A Dickinson Degree

Enrollment And Registration. New students plan their course schedules with a faculty adviser assigned during the orientation period of their first semester. During each subsequent semester, students plan their course schedules with their adviser during a week of preregistration which occurs in November for the spring semester and in April for the fall semester. Registration takes place the day before the start of regular classes each semester. Freshman seminars begin during the orientation period and are assigned on the basis of a preference questionnaire submitted during the summer.

Students must participate in the one-day registration. Even if their schedules were complete as a result of preregistration, students must confirm their course selection at registration. Students who must be absent from registration should notify the registrar's office in advance. Otherwise, preregistered courses will be cancelled from their schedule.

All college tuition and fees must be paid prior to the student's registration. A non-refundable deposit of \$300 is due prior to preregistration each semester and is applied to the next semester's costs.

Course Load And Credit. A full-time course load is between three and five and a half courses per semester. A typical schedule is four courses each semester, although students must schedule two semesters of five courses to complete the graduation requirement of 34 courses in eight semesters. Students who desire to carry fewer than three courses must receive permission to be part-time from the registrar. To take more than five and a half courses a student must petition the committee on academic standards through the office of the associate dean of the college.

Each course, unless otherwise noted in the

course description, is equivalent to four semester hours. Credit for courses is based on the assumption that at least three hours of study accompany each period of recitation or lecture. Half courses exist in only a few departments and may meet either for only half the semester or on a half-time basis for the entire semester. Physical education courses and some military science courses carry no academic course credit.

Changes In Course Schedules. Students may make changes in their course registration during the two weeks (in calendar days) following registration. No change in registration is official until an add/drop form signed by the student's adviser and the instructor, when required, is filed in the registrar's office. Starting a course after the first full week of classes is usually not advisable. Changes to or from the pass/fail option and in the use of the audit status require an add/drop form.

Changes in Course Level. Certain courses in the languages, sciences, and mathematics are offered at several levels. Students who find themselves enrolled at an inappropriate level in these courses may change levels with the consent of the instructor(s) and the adviser during an additional period of approximately two and a half weeks. (See college calendar for exact date.)

Auditing Courses. A student may attend a course without credit by registering to audit the course. The permission of both the instructor and the student's adviser is required. Audit registration occurs during the course-change period. A student who has received credit for a course may retake the same course on an audit basis. Students who are enrolled for three or more courses may audit without an additional fee. The instructor stipulates the requirements of the course for all auditors early in the semester. Courses taken as audits do not appear on a student's transcript unless the instructor authorizes such an entry at the end of the semester.

Late Changes In Course Schedule. Add/drop and change-in-level deadlines are significant points in the semester beyond which any change in schedule affects academic performance. For

this reason, students who want to make additions or changes in the level of their registration after these deadlines must make their request by petitioning the committee on academic standards through the associate dean of the college. A student may withdraw from courses until 15 days after Roll Call of each semester. After this period, withdrawal will require a full review before the standards committee. Withdrawal from a course will be indicated by the entry of a "W" grade in the student's record. The option to withdraw from a course and the use of "W" grades without prior review and approval by the committee on academic standards is limited to two courses during a student's Dickinson career. Withdrawals involving a change from full-time to part-time status will be accepted only if the change of status has received prior approval by the registrar. A student may petition the standards committee to drop a course from the record only when, through no fault of the student, no substantial participation in the course has occurred.

Grading. Faculty report an evaluation of student performance twice each semester. At mid-semester (Roll Call), all grades for first semester freshmen and any grades of "C-" or below for all other students are reported. These roll call grades are sent to students, advisers, parents, or guardians and serve as a useful benchmark for progress; however they do not become part of the student's permanent record. At the end of each semester final grades are reported which become part of the student's permanent record. Once a grade has been reported to the registrar's office, it may not be changed unless the change has been requested by the instructor and approved by the dean of the college. Students who think that a final grade may be inaccurate should begin by contacting the professor as soon as possible but in no case later than the end of the semester following the course in question.

Most coursework, independent study, and independent research work are graded on an A through F grading scale incorporating pluses and minuses. A student's cumulative average is based on letter grades received in Dickinson courses and at other colleges in the Central Pennsylvania Consortium (Franklin and Mar-

shall, Gettysburg). Two other grading options, pass/fail and credit/no credit, exist and are explained below.

A through F grading: All courses are offered for a letter grade unless otherwise listed in the catalogue or in the registration booklet. A student's cumulative average is based on these letter grades which have the following numerical value:

A	4.00
A-	3.67
B+	3.33
B	3.00
B-	2.67
C+	2.33
C	2.00
C-	1.67
D+	1.33
D	1.00
D-	0.67
F	0.00

Pass/Fail grading: The pass/fail grading system is an option intended to encourage students to enroll in coursework containing subject matter or approaches unfamiliar to them and for which they do not wish a letter grade evaluation. This option is available on a limited basis to students after the first semester of their freshman year.

Under this system, "pass" is defined as work of a quality earning a grade of at least "C" and "fail" is defined as work of a quality earning a grade of "C-" or below unless the instructor indicates a different criteria for the grade of "pass". Taking a course on the pass/fail basis requires approval of the instructor. It is the responsibility of each individual instructor to indicate at the beginning of the course the standards for passing and failing work in that course. Some departments may prohibit use of the pass/fail option in specific courses and, normally, pass/fail work should not be included among courses taken for the major or minor program requirements. In courses numbered 300 and above, pass/fail may be taken by permission of the instructor only. Courses taught on the credit/no credit system may not be taken on a pass/fail basis. Students may take no more than one

course on a pass/fail basis each semester and no more than a total of four pass/fail courses among the 34 required for graduation. Changes to or from a pass/fail grading basis must be made within the two weeks (14 calendar days) following registration.

Credit/No Credit grading: Credit/no credit grading, in contrast to the pass/fail system, is not the student's option. Each semester a few courses are offered on the credit/no credit basis at the request of the instructors and with the approval of the committee on academic standards. All students registering for a course offered for credit/no credit will be evaluated on that basis. Mastery of the course's objectives is considered a satisfactory completion of the course and results in a grade of "credit." Failure in the course results in a grade of "no credit." All internships are graded on a credit/no credit basis. As with the pass/fail system, neither grade results in a change to the student's cumulative average. The option to enroll in credit/no credit courses is open to all students including first semester freshmen, (except internships, normally limited to juniors and seniors) with no maximum number of credit/no credit enrollments.

Incomplete Grades: A grade of "incomplete" may be reported only in cases in which illness or other serious emergency has prevented the student from completing the work for the marking period. No incomplete is in effect until a form has been filed with the registrar which states the reasons under which it has been granted, contains an evaluation of the student's work to the date of the incomplete, and is signed by both student and instructor. An incomplete may not be reported because of negligence or procrastination on the part of the student. In addition, this temporary grade may be reported only if the student has done satisfactory work in the completed portion of the course. An incomplete grade must be cleared before the roll call of the following semester unless an exception is granted by the committee on academic standards. In every case, the incomplete must be cleared before the end of the second semester following. If an incomplete has not been cleared within stipulated time limits, the appropriate

"grade" indicating a lack of satisfactory completion will be recorded.

Grades In Year Courses: To be admitted to the second semester of a year course (a hyphenated or an asterisk course) the student must have attained a passing grade in the work of the first semester. Students who do not pass 101 Language courses and 113 Music courses will receive failing grades.

Course Failure: A letter grade of "F", a "fail" under the pass/fail system, or a "no credit" under the credit/no credit system are all evaluations expressing failure in a course. The letter grade of "F" results in a reduction of the cumulative average, while "fail" and "no credit" do not change the average. A failed course may be retaken for credit. In the case of letter-graded courses, both the original grade and the new grade are calculated in the average. All failing grades continue to appear on the student's academic record regardless of course repetition.

A final semester senior who does not receive credit for a course only because of a failure in a final examination may apply for one reexamination in each such course, provided the failure is not due to dishonesty. After successful reexamination, a new course grade may be recorded which will be no higher than the minimum passing grade in the applicable grading system. If a reexamination is allowed it shall be conducted by a committee appointed by the chairman of the department in which the failure occurred and shall be conducted within ten days of the date of the original examination, except when an extension is granted by the committee on academic standards.

Progress Toward The Degree. Normally students complete either the B.A. or the B.S. degree programs in four years taking four or five courses per semester. Students are expected to meet all requirements for graduation in effect at the time of their acceptance. Responsibility rests with the student for the election of such courses as will satisfy the requirements of the College for graduation. Freshmen become sophomores when eight courses creditable toward graduation are completed. Sophomores achieve junior status after 16 courses and juniors become seniors after 24 courses.

A minimum of 17 courses must be taken on the Dickinson campus. Students must be accepted in a major field of concentration by the time 22 courses have been completed. Six of the last eight or the last four courses in a student's program must be taken on campus in order to fulfill the senior residence requirement. All course work taken at other institutions after admission as a degree candidate must have prior approval from the director of off-campus studies.

Minimum Standards. A student who fails to meet the minimum grade point average for his or her class will be required to withdraw unless the committee on academic standards takes action otherwise. Procedures to qualify for readmission are found on page 21. The minimum average for a freshman to be in good academic standing is 1.75 for the academic year. Sophomores must have a minimum of 2.00 for the year or a cumulative average of 2.00 at the end of the sophomore year. Juniors must have a cumulative average of 2.00 at the end of the junior year. A senior to be graduated or to remain in good academic standing must have a minimum of 2.00.

Credit For Course Work At Other Institutions. Course work submitted by transfer students is evaluated by the registrar after a preliminary and tentative appraisal has been performed by the admissions counselor. In general, course work taken at accredited colleges or universities which parallels the curriculum at Dickinson is transferable provided grades of "C" (2.00 on a 4.0 scale) or better have been earned. A maximum of 17 courses may be accepted for transfer. Transfer students must then complete the remaining 17 courses toward graduation on campus.

Dickinson students who desire to study away from campus for summer study or during the academic year must obtain prior approval of the program of study from the director of off-campus studies and their academic adviser. In general, the same conditions for acceptance of proposed courses apply as described above for transfer students. Students in good academic standing may receive up to a total of four transfer course

credits for summer study at other approved institutions; they may be taken in a combination of one or more summers. Off-campus study during the academic year is normally limited to a maximum of four and a half courses for one semester or nine courses for a full academic year. (See in-absentia under Changes in Student Status.)

In addition, off-campus study in the senior year, if it precludes a student from being on campus for six of the last eight courses or the last four courses preceding graduation, requires special approval from the director of off-campus studies. Special approval is also necessary for participation in more than two semesters of study off campus or for participation in more than one off-campus program.

Final determination of credit and satisfaction of Dickinson distribution and language requirements will be determined by the registrar.

Changes in Student Status:

In-Absentia (off-campus study): A student who is given prior approval to study at another institution during the academic year and while enrolled at the College is considered to be in-absentia. Approval for this status can be granted for one semester or one year by the director of off-campus studies. In-absentia students may transfer up to one full year of academic work if prior approval of the program has been obtained. Students planning to be in-absentia preregister for off-campus study but normally do not pay tuition or fees to Dickinson. Upon return on schedule to the College they do not need to apply for formal readmission.

Leave Of Absence: An approved leave of absence for one semester or one year enables a student to maintain enrollment at the College but does not permit any academic work to be taken for subsequent transfer credit. This status may be granted by the office of student services and the office of academic affairs and is subject to renewal. Students who return on schedule do not need to apply for formal readmission. Students should contact the office of student services for the appropriate forms and information and to schedule an exit interview.

A voluntary leave of absence may be granted prior to the date of Roll Call for any given

semester. "W" (for withdrawal) grades will be recorded in lieu of a regular grade for all registered courses. A student may be required by the dean of the college to take up to one semester's leave of absence if such action is judged to be in the student's academic interest.

Withdrawal: Withdrawal from the College whether voluntary, required, or administrative discontinues enrollment as a degree candidate. A student who withdraws and later wishes to return must make formal application to the registrar for readmission. If the student's average was below the minimum class standard the application will be considered by the committee on academic standards.

A student may withdraw voluntarily at any time with "W" grades being recorded for all registered courses if the withdrawal is made before the first day of final examinations. If withdrawal is made during the final examination period, regular grades will be recorded. Students should contact the office of student services for the appropriate forms and information and to schedule an exit interview.

Students whose academic average falls below the minimum standards for their class are required to withdraw. The committee on academic standards may make exception and allow a student to continue enrollment on academic probation for which special requirements are established. A student may qualify for readmission by attending an accredited institution for one semester (not a summer session) with a full program of study approved in advance by the office of academic affairs and the committee on academic standards, attain a minimum average of 2.25, and have no grades lower than a "C". Military service or satisfactory employment for at least one year may be substituted for a semester of academic work.

Students who fail to preregister or register and who do not inform the College of their plans will be administratively withdrawn. Such students may apply for readmission.

Dismissal: A student required to withdraw for a second time for academic reasons is dismissed from the College without the privilege of readmission at any time.

Information For Students Not Enrolled For A Dickinson Degree

Enrollment And Registration. Students not enrolled for a degree are admitted to the College through either the office of admissions or the office of continuing education, depending on their status. Either office can advise students on the proper procedure to follow. Continuing education students are registered through the director of that program and do not participate in preregistration or in registration. Nondegree students admitted through the office of admissions are considered special registrants for their first registration and participate in registration. Subsequent semester course scheduling by these students occurs through normal preregistration and registration procedures. Registration priority after the first semester is determined by the number of courses completed.

General Policies And Academic Standards. A nondegree student must meet the same minimum standards required of a degree candidate. As with registration priority, the number of courses completed will determine classification and applicable standards.

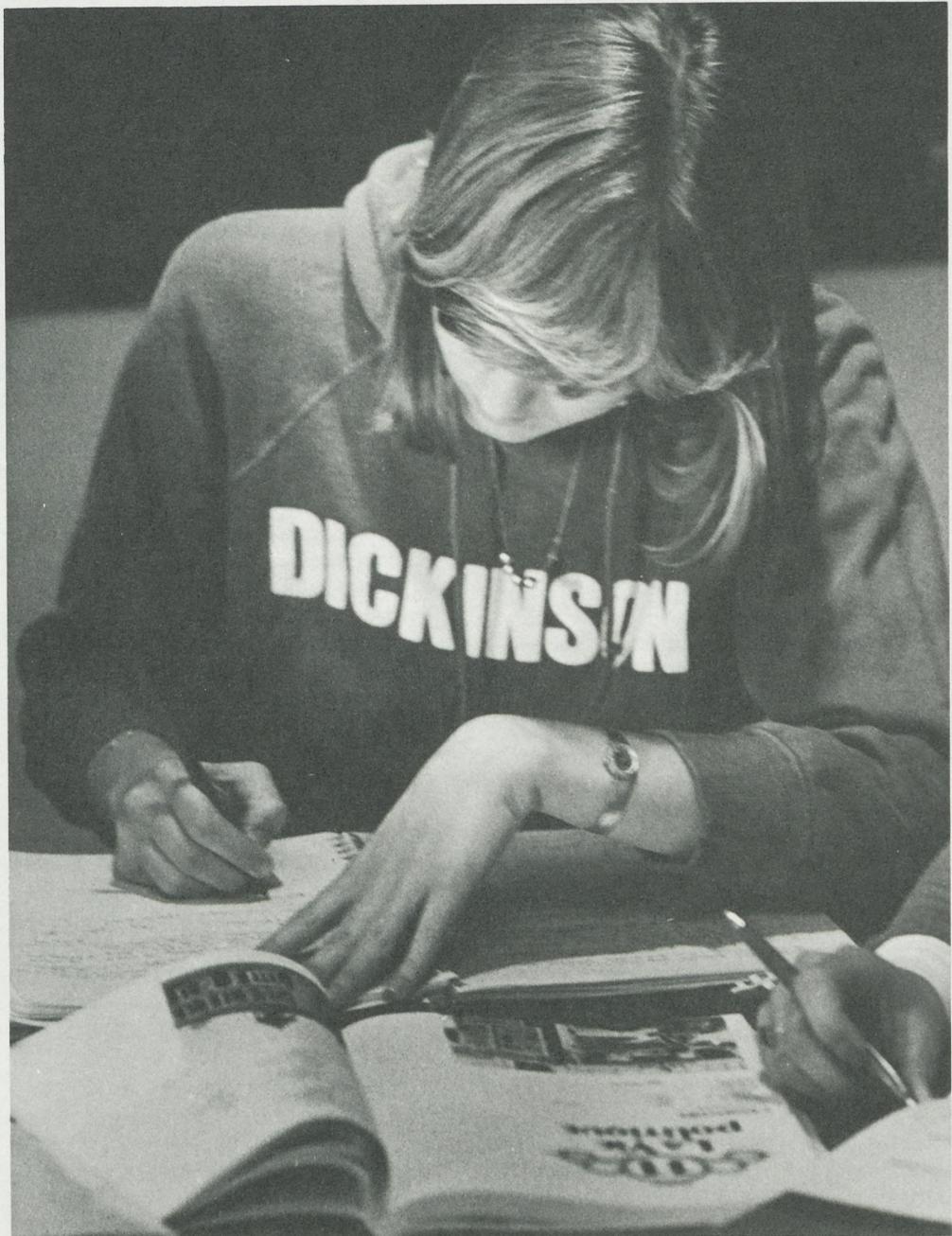
A nondegree student may be part-time (fewer than three courses) or full-time (between three and five and one-half courses) depending on the circumstances of admission. This status can be changed only by agreement with the office that admitted the student.

Nondegree students who are attending Dickinson while enrolled in another institution must be in good academic standing at their home school and have the recommendation of the appropriate official responsible for approval of their program. It is the responsibility of such students to obtain all advice necessary regarding their course selections and various grading options from their home institution.

Conversion To Degree Status. Nondegree students may apply to the office of admissions for regular admission. If admission to degree status is approved, all coursework completed at Dickinson will be accepted toward the degree provided that the student has more than 12 courses remaining to graduate. At least 12 courses must

be taken while enrolled for a degree and with an approved major field of concentration. A minimum of 17 courses must be taken at Dickinson. Previous coursework from other institutions will

be evaluated on the same basis as transfer credit. In general, the student must meet all requirements for graduation in effect at the time of acceptance.



Living and Learning on Campus

Cocurricular Activities

Extracurricular Activities

Recreational Sports and Intercollegiate

Athletics

Religious Life

Cultural Affairs

Advising and Counseling

Social and Residential Policies

Residential Services

The Campus

Living and learning in a liberal arts setting provides many and varied opportunities for students to integrate intellectual growth and social development. The pursuit of knowledge, personal insight, and cultural enrichment is a process in which the academic experience is inseparable from and greatly strengthened by the experience of students in their residential environment. The participation in residential life of the College enables students to better recognize the close relationship between social, cultural and intellectual activities, and to self-develop the values and priorities of fully educated individuals.

Cocurricular Activities

Cocurricular activities of the College augment the traditional curriculum in the arts and languages. Under the supervision of faculty directors, cocurricular activities present the challenge and enjoyment of performance and production. Students and members of the faculty together engage in the instruction, practice and performance of music, drama, and dance. Language houses and clubs extend the study and exploration of foreign languages and cultures. Production of the student publications, broadcasts and debates creates a wide range of experiences in which the learning-teaching experience is integrated into student life.

Music

The cocurriculum in music at Dickinson College is unique in its purpose and scope, and the level of student participation and enthusiasm for music making at Dickinson reflects the success of this vision. There are three foundations to a college education in music whether one is a major or, more often, simply a participant: courses in music history and theory present the historical and cultural focus of the literature in music, applied lessons in instruments and voice taught on an individual basis develop the student's technical and interpretive abilities, and the cocurricular ensembles offer the student an opportunity to develop further and to enjoy these skills through regular rehearsal and performance. In presenting these three dimensions the music faculty work closely together as a team so that maximum success is enjoyed in every area through cooperation and coordination. In the new Weiss Center for the Arts students enjoy superb facilities for instruction, practice, rehearsal, and performance.

The ensembles described below are all directed by professional musicians, and are open to all Dickinson students, faculty, and members of the Carlisle community through auditions.

In the field of serious music, students may join the College Choir of 100 voices, the selective Chamber Choir of 28 voices, the Collegium Musicum for Early Music or the 70 member College-Community Orchestra. In the field of popular music, Dickinson offers students the opportunity to join the Jazz Ensemble, a flourishing organization. Cocurricular instruction in jazz improvisation and arranging is offered as well. The music department offers extensive opportunities to study and perform chamber music in the Woodwind Quintet, Brass Quintet, and Brass and Woodwind Ensembles. On the first Wednesday of each month during the academic year, the music department presents a Noonday Concert in the Rubendall Recital hall drawing upon musicians from all these activities.

Drama

The cocurricular program in drama provides students with the opportunity to experience the excitement and involvement of theatrical production under the supervision of the program director. Characterized by energetic commitment, the students active in the cocurricular drama are a mix of those who are majoring in Theatre and Dramatic Literature and many who are primarily interested in participating in the many aspects of productions.

The faculty in the department of dramatic arts and the designer and technical director for the Mermaid Players oversee the three major productions and comprise the instructional support for the program. The theatrical organization for the program is the Mermaid Players. Each year students who have been active in the productions are tapped for membership in the Players.

Last year the Players staged Oscar Wilde's *The Importance of Being Earnest*, *Street Scene*, and, with the music department, the Gilbert and Sullivan operetta *The Gondoliers*. In addition to three major productions, each year the program includes the Freshman Plays, one-acts directed by students with freshman casts, and the experimental Lab Shows, also directed by students. Open try-outs are held before each production.

Dance

The Dance Theatre Group, a cocurricular organization run by a student committee under faculty advisement, sponsors performances, workshops, classes, "jam sessions", films and lectures which are open to all those interested in dance regardless of experience. In addition The Group produces both a fall and spring concert of student choreography. These pieces range from solos to large group dances and cover a variety of styles including jazz, modern, and dance-drama. Anyone may audition to perform in these concerts or volunteer to help on technical, costume, and publicity crews.

Instruction in modern dance, ballet, composition, and movement improvisation at beginning and intermediate levels is offered through both the physical education and the dramatic arts programs.

Those students interested in classical ballet may wish to take advantage of the proximity of the Central Pennsylvania Youth Ballet, an established regional ballet company and school located a mile from campus with a reputation for high quality instruction. Experienced students may be invited to join CPYB which presents performances throughout Pennsylvania and the surrounding states. The CPYB and the College cooperate in offering a summer program of ballet instruction for five weeks in June and July.

Language Houses and Clubs

In the belief that integrative education is essential to the liberal arts experience, the foreign language departments provide various opportunities for Dickinson students to enhance their study of a foreign language and culture. Involvement in the cocurricular language program is an effective and valuable way for faculty and students to enjoy exchanges outside the classroom, and adds a very positive dimension to the Dickinson educational experience.

The departments of French, German, Italian, Russian, and Spanish each sponsor a language house to which interested students may apply to live. The house residents speak the language of the house as well as participate in the numerous activities sponsored for the college community by the language house and respective language club. A foreign student assistant is in residence and oversees many of the activities in the French, German, Spanish, and Italian houses, thus helping those who plan study abroad to prepare for it and offering those who have studied abroad the opportunity to renew and amplify their experiences. The language clubs and houses in cooperation with the language departments sponsor lecture series, films, concerts, art shows, dinners, and parties to which all who are interested in the language and culture are welcome.

The Maison française, established in 1974, creates for students the cultural, social and intellectual climate of France and encourages them to contribute actively to that climate. Noteworthy events in recent years include the establishment of a student-produced radio program in French and the visit of a French actor. Twice

monthly, students work under the tutelage of the French assistant to write an article in French for the *Dickinsonian*. A final important service is to find and maintain contacts with French speakers extra-murally, through invitations to speak, field trips and so on.

The German House provides eight students the opportunity to taste German culture through various activities such as Kaffeeklatsch, Faschingsparty, movies and lectures. Since students in the house speak German on a regular basis, they feel much more at ease in their use of the German language. Thus, living and participating in the activities of the German House is good preparation for a junior year abroad at a German speaking university.

La Casa Italiana is the informal place for all those interested in Italian or Italy. It is the center of most of the activities sponsored by the department of Italian and by the Italian Club: music, ethnic food, slide shows, video cassettes. In the spring semester the Casa and the Italian Club sponsor special events during "Italian Week." Recently these have included an Italian film festival, a concert by the Coro Stelutis from Bologna, the visit of the Italian folk singer Francesco Guccini.

The Spanish department enriches student life with a variety of cocurricular opportunities. Besides bimonthly programs in the Spanish house centered on topics of Hispanic interest - history of Latin American foods, Spanish folklore and folk music, Paella dinner, and bilingual education career opportunities - the department also encourages student involvement in its annual Latin American colloquium devoted to the study of contemporary socio-political problems or to a particular literary figure in Latin America. In 1983 the department participated in a Dickinson symposium dedicated to Jorge Luis Borges, the poet, who was on campus for the three-day event.

The Russian House organized and sponsored meetings with prominent Russian writers living in exile, S. Sokolov and V. Voinovich. At a Russian bazaar they sold Russian books and souvenirs. Two yearly events are sponsored by the house: the Russian week of films and live performances and the Easter egg workshop where

the Ukrainian technique for painting Easter eggs is demonstrated.

Journalism, Writing and Broadcasting

The Dickinsonian was founded as Dickinson College's weekly newspaper publication in 1872, with the motto on the masthead being, "Give the people the light so that they may find the way." Today, *The Dickinsonian* continues to uphold its historical commitment as an essential constructive voice of, and information source for the College community. In addition to the respect the paper commands at home, it is an Associated Collegiate Press award recipient.

The Dickinsonian is published on Thursdays throughout the academic year by students of Dickinson College. Approximately 2,200 are printed weekly for free distribution on campus and extensive mailing abroad. A regular student newspaper staff participates in the publication of each issue under the guidance of a democratically-elected editorial board of some 15 individuals. Editorial policy and subject matter of *The Dickinsonian* is largely determined by this board. Student and faculty contributions in the form of letters, articles, or opinion statements are always encouraged.

While *The Dickinsonian* truly offers the entire College community a fine service in the form of news, arts, and sports coverage, its most special experience is especially extended to those directly involved in the actual weekly issue production. *The Dickinsonian* is independently governed by students. The interaction among its staffers that comes with its publication provides these Dickinson students with a unique opportunity to cooperate in the formulation of a very special product. The paper's staff continually grows in a mutual effort toward achievement of expressive quality and creativity. Most importantly this communal drive never loses sight of the consideration and respect that each individual's input deserves. As a respected voice, a creative outlet, and a source for group interaction, *The Dickinsonian* excels as a major cocurricular opportunity for all members of the campus community.

The Belles Lettres Review, a literary magazine, and the yearbook, *The Microcosm* provide stu-

dents with additional formats for publishing their writing and art. *The Mermaid's Tale*, an information annual for old and new students, is produced by students in conjunction with the new student orientation program.

The college radio station, WDCV-FM (88.3), broadcasts daily from 6 a.m. to 2 a.m. in a radius of 20-24 miles. Programming is staffed and managed by students who produce programs for information and entertainment.

Debate and Speech

The tradition of student debate is very old at Dickinson and was nurtured for many generations of students by the original literary societies, the Belle Lettres, founded in 1786, and the Union Philosophical Society, founded in 1789, and the Harman Literary Society, founded by women students in 1896. The Debate Council carries on the tradition through its sponsorship of the debate team and a broad range of individual speech events including dramatic interpretation, original oratory, prose, and perusasive speech.

The Debate Council belongs to the Cross Examination Debate Association. The debate team is ranked nationally and travels to regional and national tournaments. The Debate Council is under the advisement of a faculty member.

Extracurricular Activities

Dickinson students have numerous and varied opportunities to participate in extracurricular activities. Here, students have full responsibility for funding, organizing and implementing a broad range of organizations and activities. As organizers, officers, chairpersons, and committee members of clubs, societies, and senate committees, students develop and exercise interpersonal and organizational skills. As members of these organizations and as participants in the events which they present, students develop their own recreation and entertainment. Substantial involvement in one organization may be

balanced by the casual enjoyment of the activities of others.

Student Senate

The Student Senate is a representative body whose members are elected annually from all the residences and from among the students living off campus. The officers and members of its committees serve as liaisons with the administration and faculty, and as representatives of the students. The Senate has responsibility for allocation of the Student Activities Fee Fund.

The student senate committees, social organizations, and the Office of Student Services plan events for students of a social, cultural, recreational, and educational nature. The Concert Committee presents popular performers in concert several times a year. The Cultural Affairs Committee brings performing artists to the campus at least ten times during the year in the fields of dance, theater, and music. Several of these programs have the artists "in residence" conducting workshops and discussions. All of these events are either free to students or available at a nominal charge.

In addition to the music, dramatic, and dance performances of the cocurricular programs, student organizations present plays, musicals, and dances. The Arts house produced "The Children's Hour" and the Follies presented "South Pacific" and "Runaways during 1983-84. These student organizations encourage participation by interested people willing to contribute hard work and creative energy. Tryouts are open for all of their productions and there is regular recruitment for production crews.

Dickincinema and the Student Senate Film Society are the film organizations on campus. They bring full-length feature films on a weekly schedule throughout the semester. The schedule includes a variety of older, classic, foreign, and recent films. Some of the weekend movies shown last year included "Flashdance," "Ghandi," and "Sophie's Choice." Many of the academic departments lend support to the film program by cosponsoring the presentation of film masterpieces and lesser known works. The Summer Film Series shows first-rate entertain-

ment chosen with all members of the summer community in mind.

The Campus Activities Board, in addition to other groups, plans programs for college-wide participation. Many organizations are involved in the annual Fall Fest Charity Weekend in October and Spring Festival in May. Each weekend offers concerts, dances, games, contests, outdoor barbeques, and a variety of performers. Traditionally, Broadway Night, Octoberfest, Parents' Weekend, Siblings Weekend, and other special events of various organizations have contributed social events to the College calendar. On any given weekend, late-night entertainment can be found in the coffeehouse which provides a warm and friendly atmosphere along with a variety of foods and beverages.

Numerous clubs and societies have been formed by students in support of common interests and activities. They sponsor events which are primarily of interest to their own members. In addition, many of them present meetings and events which are open to all interested members of the College. Some of these organizations are language clubs, club sports (equestrian, fencing, ice hockey, soccer, rugby, men's volleyball, women's rugby, and boxing), preprofessional societies (prelaw, prebusiness, prejournalism, and prehealth professions) and department clubs. Depending on their membership they may sponsor functions such as seminars, speakers, tournaments, career trips, and picnics.

Bus trips to Baltimore, Washington, D.C., New York City, and Philadelphia are sponsored several times a year. Most of these trips are planned to include museums and performances. They are sponsored by academic programs, student services, and campus organizations.

Occasionally buses are available simply as transportation for anyone wanting to visit the metropolitan areas. Trips are also sponsored to other colleges to attend cultural events, special theme weekends, or popular concerts.

Societies

The Pennsylvania Alpha chapter of Phi Beta Kappa was established at Dickinson College on April 13, 1887. Election to membership is the highest academic honor available to a Dickinson

student, and only those who rank among the top 10 percent of their class are eligible.

Other honorary societies are as follows: Tau Kappa Alpha, debating and oratory; Pi Delta Epsilon, journalism; Alpha Psi Omega, drama; Pi Gamma Mu, social science; Phi Mu Alpha, Sinfonia, music; Delta Phi Alpha, German; Pi Delta Phi, French; Sigma Delta Pi, Spanish; Eta Sigma Phi, classics; Psi Chi, psychology.

Omicron Delta Kappa, established at Dickinson in 1927, is a national leadership society for seniors of outstanding ability. Wheel and Chain is a leadership society for senior women. Raven's Claw is a campus social recognition society.

Fraternities and Sororities

Approximately 55 percent of the Dickinson men belong to ten national fraternities which have chapters at Dickinson: Alpha Chi Rho, Beta Theta Pi, Kappa Sigma, Phi Epsilon Pi, Phi Delta Theta, Phi Kappa Psi, Phi Kappa Sigma, Sigma Alpha Epsilon, Sigma Chi, and Theta Chi. The fraternities occupy residence halls on the campus.

Four national sororities have chapters at Dickinson: Gamma Phi Beta, Pi Beta Phi, Kappa Kappa Gamma, and Kappa Alpha Theta. There is one local sorority, Delta Nu. Sororities independently maintain their meeting rooms in the town of Carlisle. Approximately 40 percent of the Dickinson women are affiliated with sororities.

Recreational Sports and Intercollegiate Athletics

The hallmark of Dickinson's physical activity program is participation. The five million dollar Kline Life/Sports Learning Center was designed primarily as a recreational facility to encourage students, faculty, and staff to meld the concept of sound body/sound mind into their daily activity. The recreational sports program

was established to provide opportunities for participation in a wide variety of on-campus sports and recreational activities. Although the inter-collegiate program attracts more attention, intramural and recreational programs affect a larger group of students while providing for an appreciation of worthy use of leisure time. This program area provides a comprehensive array of activities designed to satisfy the diverse needs and interests of the students and faculty-staff members of the College community. A wide spectrum of structured and unstructured activity is available including intramural tournaments, corecreational activities, special events, sport clubs, and free play recreation.

Intercollegiate athletics at Dickinson are designed to maximize the athletic potential of the individual participants by providing top line coaching and outstanding training/competition facilities. The program offers athletic competition at the Division III level of the NCAA for both men and women. The College is a member of the Middle Atlantic States Athletic Conference and the Centennial Football Conference. Competition in both of these conferences allows for the Dickinson athlete to compete against some of the best teams and individual athletes in the nation at the Division III level.

The diversified sports program of the College includes 10 intercollegiate sports for men and 9 for women. (For men: football, soccer, cross country, basketball, swimming, track and field, baseball, golf, tennis, and lacrosse. For women: field hockey, cross country, volleyball, swimming, basketball, softball, tennis, track and field, and lacrosse.) Many of the sports offer junior varsity opportunities as well as varsity competition.

The College's physical activity facilities are among the finest in the country for a small, liberal arts college. The facilities include an open recreational area which includes field space for softball, touch football, soccer, golf, and rugby. Additional field space is available for intercollegiate and some recreational sport programs at the College's Biddle Field. This area includes play space for football, soccer, baseball, field hockey, and lacrosse. In addition to the sport fields, this area has a large locker room

facility for men and women, a sports medicine center, and strength training facility. The inter-collegiate football playing field is the hub of the Biddle Field area and is designed to accommodate 5,000 spectators. The Biddle Field facility, incidentally, is used by the Washington Redskins as their preseason training facility during the summer months.

The College's indoor sports area is the magnificent Kline Life/Sports Learning Center. The 38,600 sq. ft. field house contains a competition basketball court; multi-purpose practice courts for tennis, basketball, volleyball, and badminton; space for indoor golf, baseball, and archery practice; and when foldaway bleachers are retracted, a 4-lane, 200 meter track. An 8-lane pool with a separate diving well and seating for in excess of 300 comprise the aquatics center of this facility. Squash and racquetball courts, a dance studio, a strength training facility, a sports medicine center, a seminar room, office space, a spacious lobby, and an attractively landscaped patio area and exterior grounds complete the Kline Center.

Religious Life

From its founding, Dickinson College has subscribed to the belief that the worship of God and the study of religion are integral to liberal education. In response to a heritage that recognizes freedom of worship, no student is ever denied admission to the College because of sect or creed. In addition to its courses in the department of religion, the College invites student participation in voluntary worship services on campus. Indeed, Dickinson treasures its religious diversity and the richness that diversity brings. Catholic, Protestant, and Jewish students are encouraged to examine their own heritage through courses in the Department of Religion and through programs sponsored by the Office of the Chaplain. Weekly worship services are held for Protestant, Catholic, and Jewish students. Special Holy Days of each faith are marked by appropriate worship services. During Advent, ecumenical vespers services are held. An all-College Christmas candlelight service is

a highlight of the season for Christian students. Jewish students enjoy High Holy Day services on campus as well as the traditional Passover Seder.

The Interfaith Lounge is a meeting place for a variety of student religious groups. Students are welcome to drop by the Lounge to read seminary catalogues and material on current issues facing the church and synagogue. A small chapel in the basement of Old West serves as a place for meditation or small worship service.

Community interaction is encouraged by the Big/Little Program where students serve as an older friend to community children. Another group of students share their talents and their concerns with residents of a local nursing home.

The College Chaplain coordinates religious life on campus. Besides these more formal duties, she serves as counselor to those who need a listening ear.

In 1983 both men and women considered the possibility of careers within their church or synagogue. The College joyfully assists each one in his or her preparation.

Cultural Affairs

The cultural programs of the College present occasions for the integration of intellectual growth, talent, and social development in a residential context. Campus organizations, student committees, academic departments, and the Division of Educational Services select and sponsor these programs. They are funded from student activity fees, department and program budgets, endowments, and gifts. The lectures, performances, films, exhibits, and sports and recreational activities as well as religious activities demonstrate the values of the liberal arts while furthering educational experience. Active involvement by students in the planning, presentation, and performance of all manner of cultural events extends their personal skills as well as their appreciation of the cultural arts.

Annual Symposia and Celebrations

The Joseph Priestley Celebration. Each spring the occasion of the Priestley Award brings to campus a distinguished scientist to be honored for discoveries which contribute to the welfare of mankind. The award is made in memory of Joseph Priestley, discoverer of oxygen. During the celebration, the College's collection of Priestley apparatus and memorabilia is displayed. The recipient is given an honorarium and a ceramic medallion struck from an original 1779 mold by Josiah Wedgwood which bears a likeness of Priestley derived from a pen and ink drawing by John Flaxman. The president of the College selects the person given the award from a slate of nominees submitted by a commission of earlier Priestley Award recipients and others associated with the award since it was established in 1952. Recipients of the Priestley Award have been the following:

1952	Sir Hugh Stott Taylor, for research and teaching in physical chemistry.
1953	Paul R. Burkholder, for the discovery of chloromycetin.
1954	Karl T. Compton, for peacetime use of atomic energy.
1955	Harold C. Urey, for the discovery of deuterium. Nobel Laureate in Chemistry 1934.
1956	Detlev W. Bronk, for distinguished service to mankind through biochemistry.
1957	Edward Teller, for distinguished work in nuclear physics.
1958	George Bogdan Kistiakowski, for work in chemical kinetics and thermodynamics.
1959	Willard Frank Libby, for distinguished contributions to the development of carbon dating. Nobel Laureate in Chemistry 1960.
1960	Glenn T. Seaborg, for distinguished contributions through nuclear chemistry. Nobel Laureate in Chemistry 1951.
1961	Maurice Ewing, for distinguished contributions in the fields of oceanography, climatology, and geothermal measurements.

1962	Robert W. Woodward, for the synthesis of organic molecules. Nobel Laureate in Chemistry 1965.	1980	Philip Morrison, for radioastronomy studies.
1963	Kenneth S. Pitzer, for work in theoretical quantum chemistry.	1981	Donald Knuth, for his work on computer programming and the design of computerized typography.
1964	Isador I. Rabi, for work with quantum mechanics and molecular beams. Nobel Laureate in Physics 1944.	1982	Peter H. Raven for his work in systematic botany and biogeography.
1965	Joel H. Hildebrand, for research in the fields of solubility and the structure of liquids.	1983	Stephen Jay Gould for his contribution to the fields of Paleontology, evolutionary biology, and the history of science.
1966	Charles H. Townes, for work in microwave spectroscopy and Masers. Nobel Laureate in Physics 1964.	1984	Hubert M. Alyea for his contributions to chemical education.
1967	George W. Beadle, for work in cytology and genetics. Nobel Laureate in Medicine 1958.		
1968	Marshall W. Nirenberg, for the discovery of genetic code.		
1969	Linus C. Pauling, for research on the nature of chemical bonding. Nobel Laureate in Chemistry 1954. Nobel Peace Prize 1962.		
1970	George Wald, for distinguished contributions to the field of physiology of vision and biochemical evolution. Nobel Laureate in Medicine 1967.		
1971	Margaret Mead, for distinguished contributions to the field of anthropology.		
1972	George C. Pimentel, for work in infrared spectroscopy and molecular structure.		
1973	Philip H. Abelson, for geochemical studies.		
1974	Henry Eyring, for his contributions to theoretical chemistry, the development of absolute reaction rate theory.		
1975	Carl Sagan, for his contributions into the exploration of the universe through radioastronomy.		
1976	John G. Kemeny, for the development of BASIC computer language.		
1977	W. Frank Blair, for environmental studies and ecology.		
1978	J. Tuzo Wilson, for distinguished contributions in the development of plate tectonics.		
1979	Melvin Calvin, for work in the chemistry of photosynthesis.		

The Public Affairs Symposium. The Public Affairs Symposium annually brings to the campus distinguished figures from government, business, and educational fields to participate with members of the College in a discussion of a topic of broad public interest. Each year this topic is selected from among proposals made by students and faculty. The three-day symposium features debates, discussions, films, and other presentations which explore many aspects of the subject of the symposium. In 1984 the topic "Nuclear Arms...What's the Next Move?" featured Ambassador Paul Warnke, chief SALT II negotiator, as the keynote speaker and a debate on the nuclear arms issue between publisher William Rusher and Congressman Toby Mofett. In 1983 the topic "Computers and Society" featured science-fiction writer Ben Bova and legal expert Arthur Miller. In 1982 the issue was "Human Rights" with Hodding Carter III. In 1981 the issue was "Sex Roles at the Cross Roads" with Dr. Benjamin Spock, Ted Koppel, and M. Tulis Sessions among the many participants presenting aspects of change in the roles of men and women.

The Dickinson College Arts Award. This award was initiated by the faculty of the College and endowed in 1959 by gifts from members of the board of trustees in honor of William W. Edel, president of the College from 1946 to 1959. The recipient is given a Wedgwood medallion bearing the likeness of President Edel based upon a sculpture created by Nancy Dryfoos, distinguished American sculptor. The medallion was cast especially for Dickinson College by the Wedgwood Potteries of Baralston, England. In

addition to the Wedgwood medallion, the recipient of the award receives an honorarium. The Arts Award is given to an individual who has made an outstanding contribution to the creative or performing arts. The recipient is in residence for a three- to four-day period of interaction with the College community. Since its establishment, Arts Award recipients have been: Robert Frost, 1958-59, Poetry; Eero Saarinen, 1959-1960, Architecture; Judith Anderson, 1960-61, Theatre; Leonard Baskin, 1963-64, Graphic Arts; Walter Piston, 1965-66, Music; W. H. Auden, 1967-68, Poetry; John Cage, 1969-70, Music; The Philadelphia Orchestra, 1972-73, Music; Mauricio Lasansky, 1974-75, Printmaker; Zelda Fichandler, 1976-77, Drama; John Barth, 1980-81, Literature; Toshiko Takaezu, 1982-83, Ceramics; and Thomas Binkley, 1982-83, Music; Pennsylvania Ballet, 1983-84.

The Black Arts Festival. The Congress of African Students sponsors an annual Black Arts Festival featuring nationally prominent black artists, educators, and politicians. Typically the festival includes educational and entertaining performances of music, dance, and dramatic presentations as well as in-depth discussion and analysis of current socio/political concerns of the day. Among the participants in the Black Arts Festival have been Ossie Davis, Benjamin Hooks, Maya Angelou, Nikki Giovanni, Dr. Richard Goldsby, Faith Ringgold, and Carl Stokes. Our campus has been greatly enriched by the presence of these outstanding members of the intellectual and artistic world.

Special Lectures and Scholars in Residence

Each year outstanding scholars from other institutions and distinguished public figures are invited to present lectures on campus. Their lectures provide the opportunity for faculty and students to be in contact with a wide range of research and opinion. The Wednesday Noon Discussion series is a showcase for faculty and student scholarship and achievement; "Noel on Ice: An Account of a Research Expedition to the Antarctic", "Pottery of the Cameroon," and "Folksongs of the Chesapeake Bay" were among the greatly varied topics of the past year.

Many departments and college groups sponsor lectures and discussions which engage small groups of faculty and students in the exploration of topics beyond the classroom. The Chautauqua Series of concerts, lectures, and plays takes place every Wednesday evening during the summer term.

The Woodrow Wilson Visiting Fellows Program. The College is a participant, together with 125 other colleges, in the Visiting Fellows Program sponsored by the Woodrow Wilson National Fellowship Foundation. The goal of the program is to increase understanding between colleges and the world of practical affairs. Both in the fall and spring semesters, distinguished representatives of business, public service, journalism, and other professions spend a week on campus in public lectures, classes, and informal discussions with students and professors, exploring such issues as the practical use of a liberal education, public and private morality, the role of the media in public affairs, and the ability of our economic system to meet society's needs. Woodrow Wilson Visiting Fellows have discussed aspects of the national security policy ranging from the United States' involvement with NATO to the effect of the media upon national policy, Chinese culture and social systems, and the question of industry versus environment. The most recent fellows were Ellen C. Kennedy, translator, and Curtis Cutter, diplomat and businessman.

The Morgan Lectureship, endowed by the board of trustees in 1929 in grateful appreciation for the distinguished service of James Henry Morgan of the Class of 1878, professor of Greek, dean, and president of the College, is used by the president of the College "for the procurement of one or more special lectures annually upon such subject or subjects as he may deem wise,....". The lectureship has been filled by a scholar-in-residence for a period of three to five days, meeting informally with individuals and class groups and lecturing on a topic with emphasis on the disciplines of social science and humanities. The most recent Morgan Lecturer was poet and writer Jorge Luis Borges. Over a period of weeks prior to the three day symposium, "Borges, the

Poet," a series of noonday lectures were held on the topic of Borges's writing. During the symposium, scholars gathered from many institutions to present papers, participate in the discussions, and for the extraordinary opportunity to listen, question, and talk with Borges. The presence of this internationally respected poet was unusually exciting for the Dickinson community.

The Pflaum Lectures in History are supported by income from a fund contributed by students and friends of the late Prof. John C. Pflaum in appreciation of his effective teaching. The annual lectures bring to campus scholars who, like Professor Pflaum, are particularly successful in oral presentation of historical topics. John Modell presented the 1983-84 Pflaum lecture, "Women Drivers." The Effect of the Ultra Secret on the Outcome of World War II" was the Pflaum Lecture presented by Harold Deutsch in April 1982.

The Boyd Lee Spahr Lectures in Americana. This lectureship was established in 1947 in recognition of the importance of Dickinson College and its graduates in the history of American culture and was named in honor of Boyd Lee Spahr, A.M., LL.D., D.C.L., of the Class of 1900, in grateful appreciation of his continuous interest in the Dickinson College library and of his numerous contributions to historical collections. The lecture presented in the spring of 1981 was "Joys and Sufferings of Bibliomania" by Dr. Giles Dawson.

The Glover Memorial Lectures are presented in alternate years. This lectureship in science was established in 1958 in memory of John Glover of New Castle-on-Tyne, England, the inventor of the Glover Tower, and in memory of his son and grandson, Henry and Lester Glover, by the late Dr. John D. Yeagley and Mrs. Yeagley of York, Pennsylvania. Jearl Walker presented the most recent Glover Lecture on the topic of Physics, "The Flying Circus of Physics".

Advising and Counseling

Faculty advisers, professional counselors, and peer counselors provide advising and counseling services through a counseling network. Active referral and cooperation within the network encourages students to seek appropriate guidance and support.

Individual Advising. Students are responsible for selecting the courses in which they enroll and for the election of courses which will satisfy the requirements of the College for graduation. Advisers help them to identify appropriate courses, to become aware of the requirements and choices which need to be considered, and to develop their educational goals.

Each new student is assigned to a faculty adviser. During New Student Orientation incoming freshmen and new transfer students meet with their advisers for consultation in planning their academic programs and preparing for registration. The advisers are available throughout the year to help with problems and questions that arise. During the preregistration periods in November and April, all students must meet with their faculty advisers to discuss plans for the next semester. These periodic sessions provide for regular review of the student's plans and progress.

Two types of advising groups are used for the freshman class. For approximately half of the new students, those living in the same area of a residence hall are assigned to the same faculty adviser. The faculty adviser and an upperclass student resident adviser, who lives in the freshman residence, work closely as an advising team. The FA/RA team helps freshmen as they become familiar with the requirements and expectations of the College. Both are available for assistance and support. For the other half of the freshman class the freshman seminar professor also serves as the academic adviser. Although in this situation the students residing on the same residence hall floor have different faculty advisers, each student still works with a resident adviser who is well versed in the academic pro-

gram. The frequent class contact with the freshman seminar instructor/ adviser is the major merit of this plan.

Generally, students continue with the same faculty adviser into the sophomore year and until they decide on a major field of concentration. When the student selects a major, the student is assigned an adviser who is a faculty member teaching in the major department or interdisciplinary program. The major adviser assists with the planning for the major and the remaining work toward the degree.

Preprofessional Advising. Preprofessional advising is available to all students considering careers in such fields as the health professions, the law, business, teaching, journalism, engineering, and theology. During new student orientation week and the early weeks of the fall semester, the faculty members who serve as preprofessional advisers hold introductory meetings for students considering professional careers.

Students are encouraged to attend the preprofessional advising sessions in order to seek the advice of the preprofessional advisers. Students interested in medical careers should contact the chairman of the Committee for Health Professionals for assignment to one of the committee members. The prelaw adviser conducts several open sessions during the year to help students with planning for law school application. The prelaw adviser is available to assist students with program planning and to advise them when they apply to law schools. The prebusiness adviser provides advice to students preparing for business and management careers. The teacher preparation program is supervised by the Director of the Teacher Education Program who works closely with all students seeking teacher certification. A member of the English department advises the campus newspaper, *The Dickinsonian*, and is the adviser for prejournalism students. The Chaplain assists students planning to study theology.

The preparation for a professional life begins with the development of intellectual stamina, confidence, and the capacity to enter and complete professional training. No single area of study will fully provide the necessary experi-

ence, nor is there one route which suits every student. The requirements of medical schools include specific course work in chemistry, biology, physics, mathematics, and English. The best preparation for law school is to develop analytical and communicative skills; students will need the ability to solve problems, especially intricate problems that invite controversy and require the skillful application of analytical and argumentative skills. While preparation for some professional schools is specifically outlined and for some the student has more freedom, all professional schools look for evidence of excellence and commitment. Development of strengths and self-knowledge should form the basis of the undergraduate program. The preprofessional advisers consult with students as they determine specific courses which are necessary, make general preparation, plan the application process, and make appropriate application to professional schools.

Office for Graduate Decisions

The Office for Graduate Decisions provides advice and information for students planning graduate study or professional training. The activities of the Office are designed to encourage and assist qualified students to enter graduate or professional schools. The office supplements the faculty advisory system and serves as a coordinating center for student post-graduate activities. It provides information on the competitive graduate examinations (MCAT, DAT, LSAT, GMAT, GRE). It also arranges on-campus interviews with representatives of graduate and professional schools and maintains an extensive catalog file.

For pre-medical students the office provides several specialized services. The director gives practice interviews for those students applying to medical school. The office administers a Hospital Rotation program which gives qualified junior or senior pre-medical students an opportunity to work with physicians and professional staff at Carlisle Hospital. In this program each student spends one morning a week for eleven weeks with a staff physician or health care professional in each of several medical, surgical, or laboratory departments.

The Office for Graduate Decisions works in conjunction with the faculty Pre-Health Committee in advising students and in preparing the letters of recommendation to medical schools. The director of the Office for Graduate Decisions writes the cover letter for all committee recommendations. The director also maintains personal contact with the admissions officers and dean's offices at medical schools. The director monitors developments in medical education through participation in meetings and conferences of the AAMC (American Association of Medical Colleges) and the AMA (American Medical Association). The office serves as a collection point for individual students' pre-professional advising history, graduate exam results, committee letters of recommendation, and other pertinent information.

For pre-law and pre-business students the office coordinates its advising with the faculty pre-law and pre-MBA advisers. It maintains extensive current files on graduate programs and arranges on-campus interviews with representatives of schools in these fields. The director and staff keep in personal contact with the admissions officers of the major law schools and MBA programs.

All the services of the Office for Graduate Decisions are available to Dickinson students and alumni on a year-round basis. Any student contemplating graduate or professional school may establish an advisory file in this office and take advantage of the services provided.

Counseling

The Counseling and Placement Center staff consists of a counseling psychologist and three professional counselors. They are available to all students to help with a variety of developmental concerns including educational-vocational decisions, psychological problems, and the development of individual goals. They conduct workshops to combat stress, promote general well being, improve study and testing techniques, and to deal with current student concerns in areas of personal adjustment.

The College chaplain provides personal counseling in many different areas of student life. The Office of the Chaplain works in cooper-

ation with the leaders of the religious communities to serve the needs of the students. Also available for counseling are the dean of educational services and the associate deans.

Career Planning and Placement

The Counseling and Placement Center staff makes a particular effort to initiate career orientation and exploration programs. Freshmen are encouraged to participate in the Career PATH Program, an exercise to uncover special interests and skills and learn about careers which best match those interests. Upperclassmen may also elect to participate. Supplementing the professional counseling staff are career assistants who are advanced students with special training as peer counselors. They are trained to help students initiate the exploration of career areas, write resumes and job search cover letters, and conduct video-taped practice job interviews. Several of the career assistants serve upperclass students in their respective academic departments. Others are assigned to the freshman residence units in an effort to familiarize freshmen with the career planning services. The career planning library provides students access to career information, job placement literature and graduate school information.

Employment placement services, which are part of the Counseling and Placement Center, aid seniors and alumni in solving job search problems. One of the Center's professional counselors, the placement counselor, serves as the liaison between Dickinson seniors and corporate recruiters who conduct interviews on campus. The placement office of the Counseling and Placement Center maintains senior and alumni placement files and publishes a monthly newsletter, the *Communique*, which presents current career and job opportunities and articles defining job search strategies specifically for liberal arts graduates. The Center also assists undergraduates in seeking part-time and summer work during their college years. Placement of teachers is coordinated through the Department of Education.

Internship

The Internship Office is adjacent to the

Counseling and Placement Center. An important part of career development, the internship program combines theory and practice in a field-placement learning experience. The proposal and preparation for an internship involve careful planning by the students and the internship adviser so that academic and personal development are the result.

The internship office is adjacent to the Counseling and Placement Center. An important part of career development, the internship program combines theory and practice in a field-placement learning experience. The proposal and preparation for an internship involve careful planning by the students and the internship adviser so that academic and personal development are the result.

Social and Residential Policies

Students as members of the Dickinson College community are expected to conduct themselves in ways consistent with the health and safety of its members and with the community's pursuit of its educational objectives. All students are expected to be familiar with the contents of the booklet *Student Records, Rights and Responsibilities and Proscriptions on Conduct* distributed annually by the office of educational services. Dickinson subscribes to the principles of the Joint Statement on Rights and Freedoms of Students developed by the National Student Association, the American Association of University Professors, the National Association of Student Personnel and Administrators, the National Association of Women Deans and Counselors, and the Association of American Colleges. In line with these principles, Dickinson seeks to regulate student conduct only in areas which have persuasive relevance to the College's function as an academic institution.

Dickinson students have responsibility for the management of their own affairs and for participation in the affairs of the College. Self-govern-

nance is a characteristic of residence hall life. Each residence hall elects a dorm council and establishes the social rules by which its residents live. Fraternities are responsible to the Inter-Fraternity Council and to the faculty. All campus residences and students living off campus elect representatives to the Student Senate. From the Senate, student representatives are elected to All-College Committees, attend faculty meetings, and serve on college judicial boards. Through the majors committees students participate in the academic departments. Student committees, in cooperation with the Office of Student Services, are largely responsible for planning and presenting social and cultural programs on campus.

Any student who is not officially classified as a commuting or married student is required to reside in college owned housing and participate in the college board plan. Special authorization to live off campus must be obtained from the associate dean for residential services. Maintenance of sanitary standards precludes the presence of animals in any college building. Freshmen are not permitted to maintain automobiles or other motor vehicles at the college, in Carlisle, or its environs. Other students may bring such vehicles to the campus provided they are registered with the security office annually.

Dickinson College does not condone the abuse of alcohol or other drugs and does not accept the use of alcohol or other drugs as an excuse for disruptive behavior. The use of these substances is subject to control by federal, state, and local laws. Students are advised that the College affords no protection from prosecution when these laws are violated.

The Judicial Boards

The Social Violations Hearings Board, composed of members of the faculty, an administrator, and students, hears cases involving allegations of misconduct not involving the academic program. Such allegations are first heard and may be resolved in conciliation with the associate dean of residential services.

The Academic Violations Hearings Board, composed of faculty and students, hears cases involving allegations that a student has violated

a policy which governs the academic program of the College. Such allegations are first heard and may be resolved in conciliation with the associate dean of the College.

The Student Grievance Board, composed of members of the faculty and students, hears allegations of faculty action which constitute violations of the "Guidelines on Faculty Conduct." Such allegations are first considered in conciliation with the associate dean of the College.

Residential Services

Food Service: The Dining Hall is an important aspect of student life. Residents generally participate in the Board Plan (included in the resident fee) and dine cafeteria style, with a variety of special meals provided at holidays and throughout the year. Faculty often have meals with groups of students; small rooms off the main dining hall are used for luncheon and dinner meetings of clubs, special interest groups, and academic organizations. The food service also operates a snack bar in the Holland Union Building and provides food for parties, concerts, and other events. Persons with special dietary needs can usually be accommodated.

The Health Center: The College maintains a Health Center staffed by registered nurses, a nurse practitioner, and part time physicians. The facility has a small lab, so that most routine tests required may be done on the premises. Carlisle Hospital, the primary health care facility in this area, is within walking distance of the College and is readily available for emergency treatment and for major illnesses. Students also have access to any specialty consultation when referred by the Health Center.

Dickinson has arranged for a student health/accident insurance plan that dovetails well with its health care program; normally, students are expected to subscribe. Details of the plan are given to each student prior to registration; a descriptive brochure may be obtained from the office of student services or the business office.

Residence Halls: The College has a variety of residences ranging from small houses and "suites" (bedrooms clustered around a living room and bath) to residence halls housing 40 to 200 students. The residential nature of the institution is very important; all students are expected to live on campus; a few who are married or commute from local homes are treated as exceptions. Each residence hall establishes its own regulations affecting the conduct of residents and guests, including matters such as curfews and quiet hours; these agreements are reviewed and approved by the associate dean for residential services.

All residences have resident advisers, a junior or senior carefully selected to advise new students, and particularly freshmen. The "RA's" play an important role in helping the newcomer acclimate to the institution, and to the demands of college life; they usually live in rooms adjoining those of the students for whom they are responsible.

Freshmen room assignments are the responsibility of the associate dean for residential services; assignments are made on the basis of a questionnaire completed before matriculation. Upperclass students choose rooms in an order determined by lot. In a few instances permission to live off-campus can be obtained, but requires special authorization from the office of student services.

Special Interest Housing: Several of the smaller residence halls and houses are organized in support of special interests. The French, German, Italian, Spanish and Russian Houses are residences for students seeking opportunities to practice speaking a second language. They sponsor traditional celebrations and entertainments based on those cultures. (For further information, see Cocurricular Activities.) The Congress of African Students maintains the Martin Luther King Library as the focus of cultural and social events in Strayer House. Residents in the Arts House and the Whole Earth House have sponsored many events to present and support the arts and the whole earth perspective. The residential wing of the Emil R. Weiss Center for the Arts provides housing for

eight students with a strong interest in music and art.

Residence Halls (40 or more residents)

Adams Hall, 1963. Named in honor of Dr. and Mrs. Rolland L. Adams. 182 men and women.

Drayer Hall, 1951. Named in honor of Mr. and Mrs. S. M. Drayer. 178 women.

Kisner-Woodward Hall, 1969. Named for Helen Kisner and Hugh B. Woodward. 92 men and women.

Malcolm Hall, 1966. Named in memory of Gilbert Malcolm. 79 men and women.

McKenney Hall, 1973. Named in Honor of the McKenney family. 101 men and women in suites of eight.

Morgan Hall, 1955. Named in memory of James Henry Morgan. 201 men and women.

Quadrangle Residence Halls, 1964. Ten residences providing living accommodations for up to 46 students each.

Witwer Hall, 1966. Named for the Witwer family. 80 women.

Residence Halls (fewer than 40 residents)

Mathews, 28 women, Montgomery, 25 men and women, Strayer, 9 men and women; Stuart, 36 men and women.

The Campus

Since its inception in 1773, Dickinson College has occupied facilities on or near its present site. Its oldest surviving building, West College, was constructed in 1804 to replace an earlier structure destroyed by fire. "Old West" and other early buildings occupy the John Dickinson Campus which is surrounded by a low limestone wall built in 1833 and is noted for its lawn with many old and beautiful trees. In 1963, the Federal Government designated Old West a "National Historic Landmark." As the College has grown, it has created new facilities to the south and west. The Benjamin Rush campus,

named for the famous colonial physician who was an active proponent of the College, is to the south and includes several dormitories, open areas for recreation, and the Allison United Methodist Church, used by the College for baccalaureate lectures.

To the west of the John Dickinson campus is the Charles Nisbet campus, named for the College's first president. It includes the Boyd Lee Spahr Library, the Anita Tuvin Schlechter Auditorium, the Holland Union, and several dormitories and fraternity houses.

Farther west are the College's primary athletic facilities, newest and most notable of which is the Kline Sports Center, completed in 1980. The building houses swimming and diving facilities, racquet courts, and a huge field house area which includes a 1/8 mile perimeter track and enough space for four simultaneous basketball, tennis, volleyball or similar court games. It has already been the site of conference championships. The fields close to the Center also contain football, tennis, field hockey/lacrosse, and soccer areas, a stadium, and fieldhouse. For several years, this area has been used as the preseason camp of the Washington Redskins.

Simply to note the buildings on the 55 acre campus and to mention Dickinson's 65 acre recreation area and 3500 acre wildlife sanctuary fails to give a feel for the nature of the campus. Native limestone predominates as a building material, helping link new and old architecture. Trees, lawns, and landscaping set off pleasant areas for outdoor class or quiet conversation.

College Buildings

West College (1804) originally housed the entire college; now is the main administrative building. In addition to administrative offices it houses the Durbin Oratory (an interfaith chapel), Memorial Hall (where faculty meetings and lectures and concerts take place), and the McCauley Room.

The Boyd Lee Spahr Library (1967) houses the college collections including printed materials in every form, recordings, microfilm, photographs, and manuscripts. The library provides seating for 800 readers, including closed carrels

for faculty use and honors carrels for assignment to students pursuing independent studies. Openstack areas are concentrated on the upper and lower levels. Reference and audiovisual areas are located on the main floor. The Alexander A. Sharp Room near the main entrance offers an opportunity for relaxation in an attractive setting. On the upper level, the Alvah A. Wallace Lounge commands a broad view of the Benjamin Rush Campus and the May Morris Room houses Dickinson's special collections. (For further information, see Academic Resources, page 154.)

The Bernard Center for the Humanities (1970) is an extensive restoration of East College, originally constructed in 1836, renamed for B.A. and Rebecca S. Bernard. Departments of English, classical languages, philosophy, and religion are located here in addition to classrooms, departmental libraries, seminar rooms, and faculty offices.

Althouse Science Hall (1958) is named in honor of C. Scott Althouse and contains the departments of chemistry and geology, a lecture hall, classrooms, teaching laboratories, research laboratories, the chemistry library, the geology museum, the Bonisteel-Yeagley Multiple Telescope Observatory, and faculty offices.

Tome Scientific Building (1883, renovated 1958) contains the department of physics and astronomy and lecture halls, laboratories, the Roscoe O. Bonisteel Planetarium, and research offices.

Dana Biology Building (1966), named in honor of Charles A. Dana, houses the department of biology, lecture halls, laboratories, the departmental library, research offices, and a greenhouse.

Reed Hall (renovated 1958) houses the department of psychology and education as well as classrooms, laboratories, and offices.

Denny Hall (1905, renovated 1984) houses the departments of history, political science, anthropology, and sociology.

South College (1948, renovated 1970) contains the department of mathematical sciences,

classrooms, and offices. The College Computer Center is located here.

Bosler Hall (1884, renovated 1983) contains the departments of modern languages and education as well as classrooms, seminar rooms, offices, the Instructional Media Center, and study facilities.

The Emil R. Weiss Center for the Arts (1983) houses the departments of music and fine arts, the Trout Gallery, and the Rubendall Recital Hall. A small residential wing houses students and provides accommodations for artists-in-residence.

Holland Union Building (1964) is named in honor of Homer C. Holland. The Union houses the College dining room, Mathers Theatre, the snack bar, the social hall, meeting rooms, offices, the radio station, a game room, the college store, the campus publications center, a television lounge, the campus post office, the campus security office, the counseling center, the chaplain's office, the internship office and office of student services.

The Health Center is located on the ground floor of Drayer Hall and is a completely equipped dispensary.

The Anita Tuvin Schlechter Auditorium (1971) is named in honor of the daughter of Louis A. Tuvin, principal donor. This facility is equipped for three separate performances or as a theater in the round. It contains the latest in audio and lighting features.

Communications and Development Building (1981) houses the offices of alumni affairs, development, public information, and publications. A lounge area is used by the college community. The building also houses some classrooms for mathematical sciences.

The Herman Bosler Biddle Memorial Athletic Field is the location for collegiate athletics. The 12-acre area contains a football field, tartan track, tennis courts, lacrosse field, baseball diamond, permanent stands, press box, field house, and storage facilities.

Kline Life/Sports Learning Center (1980) is named in memory of Josiah W. and Bessie H. Kline and houses the department of physical education. The 86,000 foot facility contains a multi-purpose gymnasium 25-yard 8-lane swimming pool with separate diving tank, racquetball and squash courts, dance and exercise areas,

offices, seminar room, training room and weight room.

The Sports and Recreation Area is 65 acres located two miles east of the campus along Route 11 and contains a natural life study area, golf driving range, and intramural sports area.



References

Directory 1984-1985

BOARD OF TRUSTEES

The date of first election to the Board of Trustees appears to the left of each Board member's name. Information is correct as of April 11, 1984.

Honorary President

Samuel W. Witwer, '30, Ph.B., J.D., L.H.D., S.J.D., LL.D.

Officers

William S. Masland, A.B. *President*
Bruce R. Rehr, '50, A.B. *Vice President*
Robert A. Waidner, '32, A.B., LL.B. *Secretary*
James M. Nicholson, B.A. *Treasurer*
M. Charles Seller, '55, A.B., M.A. *Assistant Secretary*
Robert W. Belyea, B.A. *Assistant Treasurer*

Members ex officio

1975 Samuel Alston Banks, A.B., M.Div., Ph.D., Litt.D. *President of the College*
1984 Nelson G. Harris, B.S., LL.B. *Chairman of the Board of Advisors of the College*
President,
Tasty Baking Co.,
Philadelphia, Pa.

Life Members

1961 Sherwood M. Bonney, '31, A.B., LL.B., Retired Executive, Johnson and Higgins, New York, N.Y.; Phoenix, Ariz.
1952 Carl C. Chambers, '29, B.Sc., Sc.D., D.Sc., Retired Professor, University of Pennsylvania; Palm Harbor, Fla.
1965 Carl P. Clare, B.Sc., D.Sc., Chairman of the Board, Clare Division, General Instrument Corp.; Chicago, Ill.
1959 John Milton Davidson, '33, A.B., Ed.M., Sales and Management Consul-

tant, O'Haret Co. and C. D. Stewart Associates; Wayne, Pa.

1958 William S. Jenkins, '31, Ph.B., LL.B., Chairman of the Advisory Board, First National Bank & Trust Co. of Western Maryland; Cumberland, Md.

1945 Sidney D. Kline, '24, A.B., A.M., J.D., LL.D., Retired Chairman of the Board, American Bank & Trust Co.; Reading, Pa.

1958 Edward G. Latch, '21, A.B., B.D., A.M., D.D., L.H.D., Retired Chaplain, U.S. House of Representatives; Gaithersburg, Md.

1967 John Wesley Lord, '27, A.B., B.D., D.D., LL.D., S.T.D., H.H.D., Retired Bishop of the United Methodist Church; Lakeland, Fla.

1954 W. Gibbs McKenney, '39, Ph.B., J.D., LL.D., Senior Partner, McKenney, Thomsen & Burke; Baltimore, Md.

1978 G. Wesley Pedlow, '34, B.S., M.S., Ph.D., Retired President, Trylon Chemicals, Inc., Lock Haven, Pa.

1971 *Alexander Rush, B.S., M.D., Physician, Pennsylvania Hospital; Philadelphia, Pa.

1962 Boyd Lee Spahr, Jr., '32, A.B., LL.B., Senior Partner, Ballard, Spahr, Andrews & Ingersoll; Philadelphia, Pa.

1964 J. William Stuart, '32, A.B., Retired Chairman of the Executive Committee, Pfizer, Inc.; Lumberville, Pa.

1974 Daniel J. Terra, B.S., Chairman, Lawter Chemicals, Inc., Northbrook, Ill.; Ambassador at Large of Cultural Affairs, U.S. Department of State

1975 William S. Thomas, '35, A.B., F.S.A., Consulting Actuary, Milliman & Robertson, Inc.; New York, N.Y.

1948 Robert A. Waidner, '32, A.B., LL.B., President, Standard Railway Fusee Corp.; Baltimore, Md.

1948 Samuel W. Witwer, '30, Ph.B., J.D., L.H.D., S.J.D., LL.D., Senior Partner, Witwer, Moran, Burlage & Witwer; Chicago, Ill.

*Died October 24, 1983

1966 Harry C. Zug, '34, A.B., M.B.A., Retired Partner, Coopers and Lybrand; Bryn Mawr, Pa.

1976 Thomas V. Zug, '33, Ph.B., LL.B., Retired Vice President for Trust Administration, Provident National Bank, Philadelphia; Haverford, Pa.

Term Expires 1985

1981 Robert M. Brasler '58, Senior Vice President, Binswanger Industrial; Philadelphia, Pa.

1979 Sidney D. Kline, Jr., '54, A.B., LL.B., Attorney, Stevens & Lee; Reading, Pa.

1974 William S. Masland, A.B., President, C. H. Masland & Sons; Carlisle, Pa.

1969 E. Donald Shapiro, '53, A.B., LL.B., Joseph Solomon Distinguished Professor of Law, New York Law School; New York, N.Y.

1981 *Ruth Shawfield Spangler, '35, A.B., M.A., Retired Teacher; Harrisburg, Pa.

1975 Jack M. Stover, '70, A.B., J.D., Attorney, Shearer, Mette & Woodside; Harrisburg, Pa.

1979 John V. Thornton, B.S., LL.B., LL.D., Senior Executive Vice President, Consolidated Edison Co. of New York, Inc.; New York, N.Y.

1976 Samuel W. Witwer, Jr., '63, A.B., LL.B., Partner, Witwer, Moran, Burlage & Witwer, Chicago, Ill.

Term Expires 1986

1983 Mary Ann Spence Altman, '51, A.B., J.D., President, Altman & Weil, Inc.; Ardmore, Pa.

1982 *Lester T. Etter, '34, A.B., M.A., Retired Guidance Counselor; Carlisle, Pa.

1982 Carol Clendening Laise, A.B., M.A., LL.D., Retired Director General of the Foreign Service, and Former U.S. Ambassador to Nepal; Washington, D.C.

1983 John F. Peters, '52, A.B., President, Peters Orchard; Gardners, Pa.

1965 James R. Shepley, '39, Litt.D., Retired President, Time, Inc.; Hartfield, Va.

*Alumni Trustee

1975 F. Thomas Trotter, B.A., D.D., S.T.B., Ph.D., General Secretary, Board of Higher Education and Ministry, United Methodist Church; Nashville, Tenn.

1971 Emil R. Weiss, '53, A.B., M.B.A., Senior Research Analyst

1979 and Investment Manager, Neuberger & Berman; New York, N.Y.

Term Expires 1987

1967 Robert W. Chilton, '38, A.B., Vice President, Cutler-Federal, Inc.; Carlisle, Pa.

1983 *James W. Gerlach, '77, B.A., J.D., Attorney, Malcolm & Riley; West Chester, Pa.

1980 Nancy Bruce Podbielniak, Retired Buyer; Rancho Santa Fe, Calif.

1983 Byron G. Quann, '61, A.B., Group Director of Communications, I.B.M.; Rye Brook, N.Y.

1958 Edward C. Raffensperger, '36, Sc.B., M.D., Professor of Medicine, University of Pennsylvania; Philadelphia, Pa.

1975 Bruce R. Rehr, '50, A.B., President, Penn Square Management Corp.; Reading, Pa.

1982 Otto E. Roethenmund, A.B., President and Chief Executive Officer, Deak and Co., Inc; New York, N.Y.

1974 John B. Warman, A.B., B.D., Ed.M., D.D., L.H.D., Bishop, Central Pennsylvania Conference, United Methodist Church; Harrisburg, Pa.

1984 Ralph M. Whitticar, III, A.B., J.D., Partner, Whitticar, Sokol and Ledbetter; Fredericksburg, Va.

Term Expires 1988

1982 Joseph D. Brenner, '39, Ph.B., M.B.A., Retired Chairman of the Board and Chairman, Executive Committee, AMP, Inc.; Harrisburg, Pa.

1979 Henry D. Clarke, Jr., '55, Chairman of the Board, Clabir Corp.; Greenwich, Ct.

1984 John J. Curley, '60, A.B., M.S., President, Gannett Company, Inc.; Washington, D.C.

1980 John D. Hopper, '48, A.B., LL.B., J.D., Pennsylvania State Senator; Harrisburg, Pa.

1984 Constance W. Klages, '56, A.B., Director, International Management Advisors, Inc.; New York, N.Y.

1980 Wilbur M. Rabinowitz, '40, Ph.B., J.D., Retired President, J. Rabinowitz & Sons, Inc.; New York, N.Y.

1982 Inge Paul Stafford, '58, A.B., M.A.T., M.A., Ed.D., Counselor, Seton Hall University; South Orange, N.J.

FACULTY

The date of first appointment to the college appears in parentheses at the end of each individual's title(s). Information is correct as of April 11, 1984.

Samuel Alston Banks

The President of the College, Lemuel T. Appold Foundation (1975).

A.B., Duke University, 1949; M.Div., Emory University, 1952; Ph.D., University of Chicago, 1971; Litt.D., College of Charleston, 1976.

George Allan

Dean of the College, Russell I. Thompson Chair of the Dean of the College, Part-time Professor of Philosophy (1963).

B.A., Grinnell College, 1957; M.Div., Union Theological Seminary, 1960; Ph.D., Yale University, 1963. *Lindback Award for Distinguished Teaching, 1968-69.*

Faculty Emeriti

Faculty emeriti are listed according to the highest rank an individual achieved prior to his or her retirement, and then according to the year he or she achieved that rank. When more than one emeritus professor have the same rank at the time of retirement, and achieved that rank on the same date, they are listed according to the year each achieved his or her preceding rank. Faculty emeriti constitute an advisory panel to the president of the College.

William W. Edel

The President of the College, Emeritus (1946).

A.B., Dickinson College, 1915; A.M., 1919; D.D., 1935; S.T.B., Boston University, 1921; L.H.D., Keuka College, 1944; D.D., Hobart College, 1944; LL.D., Gettysburg College, 1949; LL.D., University of Pennsylvania, 1949;

D.Hu., Boston University, 1950; J.U.D., Lebanon Valley College, 1956; F.I.A.L., 1959.

Howard L. Rubendall

The President of the College, Emeritus (1961). A.B., Dickinson College, 1931; D.D., 1945; M.Div., Union Theological Seminary, 1937; L.H.D., Trinity College, 1957; LL.D., University of Pennsylvania, 1966; LL.D., Dickinson School of Law, 1966.

George Shuman, Jr.

Vice President Emeritus (1935).

Ph.B., Dickinson College, 1937; LL.D., Lycoming College, 1958.

Wellington A. Parlin

Professor Emeritus of Physics (1930).

A.B., Simpson College, 1921; M.S. University of Iowa, 1922; Ph.D., Johns Hopkins University, 1929.

Horace E. Rogers

Alfred Victor duPont Professor Emeritus of Analytical Chemistry (1925).

B.S., Dickinson College, 1924; M.S., Lafayette College, 1925; Ph.D., Princeton University, 1930. *Lindback Award for Distinguished Teaching, 1962-63.*

Frank Ayres, Jr.

Susan Powers Hoffman Professor Emeritus of Mathematics (1928).

B.S. Washington College, 1921; M.S. University of Chicago, 1927; Ph.D., 1938.

William D. Gould

George Henry and Bertha Curry Ketterer Professor Emeritus of Philosophy and Religion (1937).

A.B., Wesleyan University, 1919; B.D., Garrett Biblical Institute, 1922; Ph.D., Boston University, 1929.

Elmer C. Herber

Professor Emeritus of Biology (1929).

A.B. Ursinus College, 1925; A.M., University of Pennsylvania, 1929; Sc.D., Johns Hopkins University, 1941.

Friedrich Sandels

Professor Emeritus of German (1946).

Ph.D., University of Giessen, Germany, 1912.

Benjamin D. James

Richard V. C. Watkins Professor Emeritus of Psychology and Education (1941).

A.B., Dickinson College, 1934; M.A. Bucknell University, 1936; Ph.D., University of Pennsylvania, 1962; LL.D., Dickinson School of Law, 1976.

Milton E. Flower

Robert Blaine Weaver Professor Emeritus of Political Science (1947).

A.B., Dickinson College, 1931; A.M., Columbia University, 1938; Ph.D., 1946.

Henry L. Yeagley

The Joseph Priestley Professor Emeritus of Natural Philosophy, Professor Emeritus of Physics and Astronomy (1958).

B.S., Pennsylvania State University, 1925; M.S., 1927; Ph.D., 1934.

Joseph H. Schiffman

James Hope Caldwell Professor Emeritus of American Studies and Professor Emeritus of English (1958).

B.A., Long Island University, 1937; M.A., Columbia University, 1947, Ph.D., New York University 1951. *Lindback Award for Distinguished Teaching, 1961-62.*

Howard C. Long

Joseph Priestley Professor Emeritus of Natural Philosophy, Professor Emeritus of Physics (1959).

A.B., Northwestern University, 1941; Ph.D., Ohio State University, 1948. *Lindback Award for Distinguished Teaching 1975-76.*

William R. Bowden

Thomas Beaver Professor Emeritus of English Literature (1948).

A.B., Haverford College, 1935; A.M., Duke University, 1937; Ph.D., Yale University, 1948. *Lindback Award for Distinguished Teaching, 1974-75.*

Caroline H. Kennedy

Professor Emerita of Modern Languages (1948).

A.B., Birmingham-Southern College, 1926; M.A., Alabama University, 1930; Docteur D'Université, Université Laval, 1942.

W. Wright Kirk

Professor Emeritus of Modern Languages (1946).
A.B., University of Delaware, 1930; M.A., Middlebury College, 1935; Ph.D., University of Illinois, 1955.

Paul F. M. Angiolillo

Charles A. Dana Professor Emeritus of Languages and Literatures (1962).

A.B., Columbia University, 1938; A.M., 1939; Ph.D., 1946; Postdoctoral Studies, University of Geneva, 1946-47; Officer d'Académie, 1956; Officer des Palmes Académiques, 1961. *Lindback Award for Distinguished Teaching, 1964-65. Ganoe Award for Inspirational Teaching, 1974-75.*

Francis W. Warlow

Professor Emeritus of English (1947).

A.B., Johns Hopkins University, 1931; M.A., University of Pennsylvania, 1946; Ph.D., 1959.

Roger E. Nelson

Professor Emeritus of Mathematics (1949).

B.S., U.S. Naval Academy, 1922; M.S., Dartmouth College, 1946.

Ray H. Crist

Professor Emeritus of Chemistry (1963).

A.B., Dickinson College, 1920; Sc.D., 1960; A.M., Columbia University, 1922; Ph.D., 1926.

Donald W. Flaherty

Robert Blaine Weaver Professor Emeritus of Political Science (1952).

A.B., Syracuse University, 1943; Ph.D., 1954. *Lindback Award for Distinguished Teaching, 1977-78.*

Richard M. Sia

Professor Emeritus of Physics (1954).

B.S., Northwestern University, 1928; M.S., University of Chicago, 1932.

***John E. Benson**

Charles A. Dana Professor Emeritus of Chemistry (1964).

B.S., Pennsylvania State University, 1950; M.A., Princeton University, 1953; Ph.D., 1957.

*Died October 22, 1983.

Richard H. Wanner

Professor Emeritus of Psychology (1946; 1961).
A.B., Franklin and Marshall College, 1939;
Ed.M., Harvard University, 1940; Ed.D., 1968.

Henry J. Young

Charles A. Dana Professor Emeritus of History (1957).
A.B., Franklin and Marshall College, 1932;
Ph.D., Johns Hopkins University, 1955.

Daniel J. McDonald

Professor Emeritus of Biology (1956).
B.S., Siena College, 1950; M.A., Columbia University, 1952; Ph.D., 1955.

Marianna Bogojavlevsky

Professor Emerita of German and Russian Language and Literature (1963).
M.A., University of Helsinki, 1939; Ph.D., University of Pennsylvania, 1959. *Lindback Award for Distinguished Teaching, 1972-73. Ganoe Award for Inspirational Teaching, 1977-78.*

William H. Wishmeyer

Professor Emeritus of English (1957).
B.A., Johns Hopkins University, 1948; M.A., 1949; Ph.D., University of Pennsylvania, 1957.

William H. Benson

Associate Professor Emeritus of Mathematics (1955).
B.S., U.S. Naval Academy, 1925; Graduate, U.S. Navy Postgraduate School, 1934.

***Asa W. Climenhaga**

Associate Professor Emeritus of Education (1950).
A.B., Taylor University, 1919; M.S., Wittenberg University, 1940; Ed.D., Syracuse University, 1945.

Herbert Royce

Associate Professor Emeritus of Modern Languages (1959).
Dr. rer. pol., University of Kaliningrad, 1926.

David B. Eavenson

Associate Professor Emeritus of Physical Education (1955).
B.S., Bucknell University, 1954.

Donald R. Seibert

Associate Professor Emeritus of Physical Education (1957).
B.S., George Washington University, 1943; M.A., Columbia University, 1950.

John L. King

Associate Professor Emeritus of Accounting (1959).
B.A., Princeton University, 1948; M.A., University of Denver, 1950. *Ganoe Award for Inspirational Teaching, 1971-72; 1982-83.*

Cordelia M. Neitz

Associate Professor Emerita of Library Resources (1963).
B.S. in L.S., Syracuse University, 1931; M.S. in Ed., Temple University, 1968.

Alfred N. Hartshorn

Associate Professor Emeritus of English (1958).
A.B., University of Rochester, 1932; A.M., 1957.

Dorothy W. Bowers

Associate Professor Emerita of Library Resources (1967).
B.A., Wilson College, 1963; M.S. in L.S., Drexel University, 1967.

Andrés Suris

Associate Professor Emeritus of Spanish (1973).
Licenciado en Derecho, Universidad de Barcelona, 1941; M.A., University of Minnesota, 1968; Ph.D., 1972.

Marcia B. Conner

Associate Professor Emerita of English (1964).
B.A., Cornell College, 1947; M.A., Columbia University, 1949.

Isingard M. Woodworth

Assistant Professor Emerita of Library Resources (1969).
B.A., University of California at Berkeley, 1968; M.L.S., 1969; M.A., Pennsylvania State University, 1977.

*Died November 17, 1983.

Teaching Faculty

Dennis P. Akin

Professor of Fine Arts (1969).

B.F.A., University of Kansas, 1956; M.F.A., University of Colorado, 1958. *Lindback Award for Distinguished Teaching, 1976-77.*

George Allan

Part-time Professor of Philosophy, Dean of the College, Russell I. Thompson Chair of the Dean of the College (1963).

B.A., Grinnell College, 1957; M.Div., Union Theological Seminary, 1960; Ph.D., Yale University, 1963; *Lindback Award for Distinguished Teaching, 1968-69.*

Christopher L. Anderson

Assistant Professor of Spanish (1983).

B.A., Valparaiso University, 1973; M.A., 1975; Ph.D., Indiana University, 1982.

Bruce R. Andrews

Professor of Political Science (1960).

A.B., Syracuse University, 1950; Ph.D., 1961.

***Lee W. Baric**

Professor of Mathematics (1964).

B.S. Dickinson College, 1956; M.S., Lehigh University, 1961; Ph.D., 1966.

Charles A. Barone

Associate Professor of Economics (1975).

B.A., American University, 1971; Ph.D., 1978.

Nancy H. Baxter

Assistant Professor of Mathematics (1980).

B.A., Douglass College, 1968; Ph.D., Rutgers University, 1978.

Daniel R. Bechtel

Professor of Religion (1964).

A.B., Franklin and Marshall College, 1954; B.D., Yale University, 1958; Ph.D., Drew University, 1964. *Lindback Award for Distinguished Teaching, 1969-70.*

William K. Bellinger

Instructor in Economics (1981).

B.A., Michigan State University, 1972; M.S., Cornell University, 1975.

Gordon S. Bergsten

Assistant Professor of Economics (1984).

B.A., University of Washington, 1963; M.A., University of California at Berkeley, 1965; Ph.D., 1977.

Paul J. Biebel

Professor of Biology (1963).

B.S., University of Notre Dame, 1949; M.S., St. Louis University, 1955; Ph.D., Indiana University, 1963.

Elizabeth J. Billings

Part-time Assistant Professor of French (1965).

A.B., Western Reserve University, 1944; M.A., 1945; M.A., Middlebury College, 1970.

Robert A. Black

Part-time Instructor in Economics (1983).

B.A., West Virginia Wesleyan College, 1972; M.A., 1978.

****Harry F. Booth**

Thomas Bowman Professor of Religion (1964).

A.B., Harvard College, 1949; S.T.B., Boston University, 1952; Ph.D., 1963. *Lindback Award for Distinguished Teaching, 1966-67. Ganoe Award for Inspirational Teaching, 1970-71.*

Russell M. Bova

Instructor in Political Science (1982).

B.A., State University of New York at Buffalo, 1977; M.A., Indiana University, 1980.

Donald V. Bowie

Associate Professor of English (1969).

B.A., Tufts University, 1967; M.A., Johns Hopkins University, 1969.

Robert J. Boyle

Assistant Professor of Physics and Astronomy (1981).

A.B., Princeton University, 1971; M.Phil., Yale University, 1976; Ph.D., 1981.

James A. Boytim

Assistant Professor of Psychology and Education (1980).

B.S., Indiana University of Pennsylvania, 1959; M.S.Ed., Temple University, 1965; M.Ed., Indiana University of Pennsylvania, 1966; Ed.D., Indiana University at Bloomington, 1971.

*On leave First Semester 1984-85.

**On leave Second Semester 1984-85.

Anita R. Brandon

Part-time Instructor in Woodwinds (1976).

B.M., Ithaca College, 1968; M.M., University of Arizona, 1972.

Thomas M. Brennan

Associate Professor of Biology (1978).

B.S., University of Illinois, 1965; M.S., Rutgers University, 1975; Ph.D., 1977.

David F. Brubaker

Professor of Drama (1956).

A.B., Franklin and Marshall College, 1948.

Lindback Award for Distinguished Teaching, 1967-68.

Beth A. Bullard

Instructor in Music, Director of Chamber Music (1968).

B.A., Oberlin College, 1960; M.A., Harvard University, 1963.

Truman C. Bullard

Professor of Music, Director of the Chamber Choir, (1965).

A.B., Haverford College, 1960; M.A., Harvard University, 1963; Ph.D., University of Rochester, 1971. *Lindback Award for Distinguished Teaching, 1970-71.*

Diane M. Calabrese

Assistant Professor of Biology (1981).

B.S., Gannon College, 1971; M.S., University of Connecticut, 1974; Ph.D., 1977.

James W. Carson

Associate Professor of History (1956).

B.S. in Education, Miami University, 1948; M.A., 1951.

Robert W. Cavenagh, Jr.

Part-time Assistant Professor of Fine Arts and Education, Director of Instructional Media (1972).

A.B., Princeton University, 1965; M.Ed., University of Virginia, 1970.

Walter Chromiak

Assistant Professor of Psychology (1979).

B.A., Temple University, 1974; Ph.D., 1979.

Carlos Cortínez

Assistant Professor of Spanish (1981).

B.A., Universidad de Chile, 1958; M.A., University of Iowa, 1970; Ph.D., 1975.

Stephen B. Coslett

Professor of Psychology (1960).

B.S., University of Pittsburgh, 1953; M.A., University of Denver, 1957; Ph.D., 1960.

Dorothy W. Culp

Associate Professor of English (1970).

B.A., Muskingum College, 1952; M.A., University of Pennsylvania, 1956; Ph.D., Columbia University, 1967.

Sylvie G. Davidson

Assistant Professor of Romance Languages (1979).

Licence-ès-Lettres, Université of Montpellier, 1967; Maitrise d' Italien, 1968; Doctorat de Troisième Cycle, 1978.

Scott A. Davis

Assistant Professor of Chemistry (1981).

B.S., Eastern College, 1977; Ph.D., University of Virginia, 1981.

Carol M. Derrickson

Part-time Instructor in Comparative Civilizations (1981).

B.A., Carleton College, 1967; M.A., University of Pennsylvania, 1977.

Barbara A. Diduk

Assistant Professor of Fine Arts (1980).

B.A., College of William and Mary, 1973; M.F.A., University of Minnesota, 1978.

Cyril W. Dwiggins

Associate Professor of Philosophy (1970).

B.A. Aquinas Institute, 1955; M.A., 1956; Ph.D. Northwestern University, 1978.

John R. Eaken

Part-time Instructor in Strings (1979).

B.A., Messiah College, 1972; M.M., Temple University, 1974.

James R. Ebert

Assistant Professor of Geology (1984).

B.S., State University of New York at Fredonia, 1978; Ph.D., State University of New York at Binghamton, 1983.

Beverley D. Eddy

Associate Professor of German (1973;1983).
B.A., College of Wooster, 1962; M.A., Indiana University, 1964; Ph.D., 1970.

Larry A. Engberg

Associate Professor of Psychology (1973).
B.S., Montana State University, 1968; M.A., University of Colorado, 1972; Ph.D., 1973.

Kjell I. Enge

Assistant Professor of Anthropology (1984).
B.A., Northeastern University, 1964; Ph.D., Boston University, 1981.

Susan M. Feldman

Assistant Professor of Philosophy (1980).
B.A., Case Western Reserve University, 1974; M.A., 1976; M.A., University of Rochester, 1978; Ph.D., 1980.

R. Leon Fitts

Associate Professor of Classical Studies (1972).
B.A., Baylor University, 1963; M.A., University of Georgia, 1967; Ph.D., Ohio State University, 1971. *Ganoe Award for Inspirational Teaching, 1976-77.*

Marjorie A. Fitzpatrick

Part-time Associate Professor of French, Administrative Coordinator for Internships (1975; 1980).

B.A., College of Our Lady of the Elms, 1957; M.A., Smith College, 1959; Ph.D., University of Toronto, 1968.

Arturo A. Fox

Professor of Spanish (1966).
Bachelor of Letters and Sciences, The Friends School, Instituto Pre-universitario de Holguin, Cuba, 1952; Doctor en Derecho, University of Havana, 1960; Ph.D., University of Minnesota, 1971. *Lindback Award for Distinguished Teaching, 1980-81.*

George Friedman

Associate Professor of Political Science (1974).
B.A., City College of New York, 1970; M.A., Cornell University, 1973; Ph.D., 1976.

***Clarke Garrett**

Charles A. Dana Professor of History (1965).
B.A., Carleton College, 1956; M.S., University of Wisconsin, 1957; Ph.D., 1961. *Lindback Award for Distinguished Teaching, 1982-83.*

Sheila Hickey Garvey

Instructor in Dramatic Arts (1981).
B.S., Emerson College, 1971; M.A., Northwestern University, 1973.

Warren J. Gates

Robert Coleman Professor of History (1951).
A.B., Duke University, 1941; A.M., University of Pennsylvania, 1947; Ph.D., 1951.

Philip T. Grier

Associate Professor of Philosophy (1980).
B.A., Swarthmore College, 1964; M.A., Balliol College, Oxford, 1966; Ph.D., University of Michigan, 1972.

Henry W.A. Hanson, III

Associate Professor of Geology (1966).
B.S., University of Alaska, 1960; M.S., Pennsylvania State University, 1965; Ph.D., 1968.

William A. Harms

Associate Professor of English (1968).
B.A., Hope College, 1961; M.A., Michigan State University, 1963; Ph.D., Indiana University, 1971.

Frank R. Hartman

Associate Professor of Psychology (1960).
B.S., Pennsylvania State University, 1953; M.S., 1955; Ph.D., 1957.

Charles M. Harvey

Associate Professor of Mathematics (1972).
A.B., Harvard University, 1961; Ph.D., Stanford University, 1965.

****John S. Henderson**

Part-time Associate Professor of French, Director of Off-Campus Studies (1966).
A.B., Bates College, 1961; M.A., Brown University, 1963; Ph.D., 1966.

*On leave 1984-85.

**On leave Second Semester 1984-85.

Eugene W. Hickok, Jr.

Assistant Professor of Political Science (1980).
B.A., Hampden-Sydney College, 1972; M.A., University of Virginia, 1978; Ph.D., 1983.

Scott T. Hill

Instructor in Chemistry (1983).
B.A., Gettysburg College, 1976.

***Sharon L. Hirsh**

Associate Professor of Fine Arts (1974).
B.A., Rosemont College, 1970; M.A., University of Pittsburgh, 1971; Ph.D., 1974. *Ganoe Award for Inspirational Teaching, 1981-82.*

Joyce M. Hoffman

Part-time Instructor in Mathematics and Economics (1983).
B.A., Aquinas College, 1964; M.B.A., Shippensburg University, 1983.

A. Craig Houston

Professor of Economics (1956).
A.B., Pennsylvania State University, 1951; Graduate School for English Speaking Students, University of Stockholm, 1952; Ph.D., Pennsylvania State University, 1962.

Richard A. Howland

Associate Professor of Mathematics and Computer Science (1983).
B.A., University of Massachusetts, 1963; M.A., 1964; Ph.D., 1968.

Deborah L. Hustin

Part-time Instructor in Mathematics (1983).
B.A., Colgate University, 1974; M.A., Duke University, 1976. (1983-84).

Marvin Israel

Associate Professor of Sociology (1968).
B.A., City College of New York, 1959.

Charles A. Jarvis

Associate Professor of History (1969).
B.A., DePauw University, 1963; M.A., University of Missouri, 1964; Ph.D., 1969.

Grace L. Jarvis

Instructor in Spanish and Italian (1972).
B.A., DePauw University, 1966; M.A., University of Missouri, 1969.

*On leave 1984-85.

William B. Jeffries

Charles A. Dana Professor of Biology (1959).
B.S., University of Pittsburgh, 1949; M.A., University of North Carolina, 1952; Ph.D., 1955. *Lindback Award for Distinguished Teaching, 1964-65. Ganoe Award for Inspirational Teaching, 1975-76.*

Roberto A. Jiménez

Instructor in Spanish (1982).
B.A., University of New Orleans, 1976; M.A., Pennsylvania State University, 1979.

John W. Jones

Part-time Instructor in Applied Music (1982).
B.S., Lebanon Valley College, 1972; M.Ed., Towson State University, 1975.

***Vytautas M. Kavolis**

Charles A. Dana Professor of Comparative Civilizations and Professor of Sociology (1964).
B.A., University of Wisconsin, 1952; M.A., Harvard University, 1956; Ph.D., 1960.

Michael B. Kline

Professor of French (1968).
B.A., Rutgers University, 1961; M.A., Brown University, 1962; Ph.D., 1971. *Lindback Award for Distinguished Teaching, 1979-80.*

Rebecca R. Kline

Instructor in French (1977).
A.B., Dickinson College, 1973; M.A., New York University, 1975.

David L. Kranz

Associate Professor of English (1979).
B.A., Princeton University, 1964; M.A., University of California at Berkeley, 1971; Ph.D., 1977.

Harry D. Krebs

Associate Professor of Comparative Civilizations (1972).
B.A., University of Nebraska, 1963; M.A., Temple University, 1974; Ph.D., 1978.

Vincent A. LaFrance

Instructor in Economics (1980).
B.S., University of Delaware, 1972.

Seamus Lagan

Instructor in Physics (1984).
B.A., Dublin University, 1976; M.S., Lehigh University, 1979.

Richard M. Lane

Associate Professor of Biology (1967).

B.S., Loyola College, 1959; M.S., University of Maryland, 1963; Ph.D., 1969.

***Kenneth L. Laws**

Professor of Physics (1962).

B.S., California Institute of Technology, 1956; M.S., University of Pennsylvania, 1958; Ph.D., Bryn Mawr College, 1962.

Priscilla W. Laws

Professor of Physics (1965).

B.A., Reed College, 1961; M.A., Bryn Mawr College, 1963; Ph.D., 1966.

Richard P. Lewis

Part-time Instructor in Speech (1981).

B.A., Bates College, 1980.

Robert E. Leyon

Associate Professor of Chemistry (1969).

B.A., Williams College, 1958; M.A., Princeton University, 1960; Ph.D., 1962.

John H. Light

Professor of Mathematics (1959).

B.S., Lebanon Valley College, 1948; M.S. in Physics, Pennsylvania State University, 1950; M.S. in Engr. Mech., 1957.

Elizabeth A. Lockhart

Part-time Instructor in Latin (1978).

B.A., Swarthmore College, 1950; M.A., Yale University, 1954.

Philip N. Lockhart

Professor of Classical Languages, Asbury J. Clarke Chair of Latin (1963).

B.A., University of Pennsylvania, 1950; M.A., University of North Carolina, 1951; Ph.D., Yale University, 1959. *Ganoe Award for Inspirational Teaching, 1968-69, 1972-73, 1980-81.*

John W. Luetzelschwab

Professor of Physics (1968).

A.B., Earlham College, 1962; M.A., Washington University, 1968; Ph.D., 1968.

Lonna M. Malmshimer

Associate Professor of American Studies (1975).

B.A., Pennsylvania State University, 1962; M.A., 1965; Ph.D., University of Minnesota, 1973.

Peter E. Martin

Professor of Mathematics (1965).

B.A., Yale University, 1950; M.A., Harvard University, 1951; Ph.D., 1958; Diploma in Comp. Sci., University of Cambridge, 1979.

Enrique J. Martinez-Vidal

Professor of Romance Languages (1965).

M.A., Temple University, 1960; Ph.D., University of Pennsylvania, 1970.

Trevor L. McClymont

Assistant Professor of Economics (1983).

B.A., Andrews University, 1967; M.B.A., 1980.

Barbara B. McDonald

Professor of Biology (1956).

B.S., Simmons College, 1948; M.A., Columbia University, 1955; Ph.D., 1957.

Nancy C. Mellerski

Assistant Professor of French (1977).

B.A., State University of New York at Binghamton, 1966; M.A., University of Toronto, 1968; Ph.D., University of Chicago, 1980.

Kathleen W. Moffat

Instructor in English (1984).

B.A., Yale College, 1977; M.A., Yale University, 1979; M.Phil., 1981.

Mary E. Moser

Assistant Professor of Classical Studies (1982).

B.A., Dickinson College, 1972; Ph.D., University of Pennsylvania, 1982.

Wolfgang Müller

Assistant Professor of German (1981).

Staatsexamen, Humboldt University, East Berlin, 1972; M.A., University of Wisconsin, 1976; Ph.D., 1983.

Robert D. Ness

Assistant Professor of English (1981).

B.A., Lehigh University, 1966; Ph.D., University of North Carolina, 1981.

*On leave Second Semester 1984-85.

Tamara Nestuk

Assistant in Instruction for Physics and Astronomy (1983).
B.S., Dickinson College, 1983. (1983-84).

Susan F. Nichols

Part-time Instructor in Fine Arts, Associate Dean of the College (1977).
B.A., State University of Iowa, 1960; M.A., 1967.

***Jeffrey W. Niemitz**

Associate Professor of Geology (1977).
B.A., Williams College, 1972; Ph.D., University of Southern California, 1977.

Juliana P. Nilsson

Part-time Instructor in Italian (1974;1983).
B.A., Temple University, 1952.

K. Robert Nilsson

Professor of Political Science (1962).
B.A., Temple University, 1951; M.A., Johns Hopkins University, 1957; Ph.D., Columbia University, 1964. Certificate of the Institute on International and Comparative Law, 1974. *Lindback Award for Distinguished Teaching, 1963-64.*

Sharon J. O'Brien

Associate Professor of English (1975).
B.A., Radcliffe College, 1967; M.A., Harvard University, 1969; Ph.D., 1975.

Ruth Ohayon

Assistant Professor of French (1980).
B.A., Queens College, 1971; M.A., University of Maryland, 1973; M.Phil., Columbia University, 1976; Ph.D., 1980.

John M. Osborne

Assistant Professor of History (1979).
B.A., Rice University, 1974; M.A., Stanford University, 1976; Ph.D., 1979.

Mary Pardo

Instructor in Fine Arts (1981).
B.A., University of Pittsburgh, 1971; M.A., Bryn Mawr College, 1975.

Pong-Hi Park

Instructor in Piano (1969).
B.A., Seoul National University, 1965; M.A., Peabody Conservatory of Music, 1966; Artist Diploma, 1967.

Linda K. Parkyn

Part-time Instructor in Spanish (1981).
B.A., Gordon College, 1974; M.E., Boston State College, 1977.

E. Robert Paul

Associate Professor of Computer Science and the History of Science (1976).
B.S., Brigham Young University, 1966; M.S., 1971; M.A., Indiana University, 1974; Ph.D., 1976.

Fred C. Petty

Associate Professor of Music (1971).
B.Mus., Texas Christian University, 1961; M.A., Cornell University, 1964; Ph.D., Yale University, 1971.

Harold L. Pohlman

Assistant Professor of Political Science (1983).
B.A., University of Dayton, 1974; Ph.D., Columbia University, 1982.

J. Forrest Posey, Jr.

Associate Professor of Music (1962).
B.Mus., Hardin-Simmons University, 1951; M.Mus., University of Texas, 1954; M.A., Harvard University, 1962.

Noel Potter, Jr.

Associate Professor of Geology (1969).
A.B., Franklin and Marshall College, 1961; M.A., Dartmouth College, 1963; Ph.D., University of Minnesota, 1969. *Lindback Award for Distinguished Teaching, 1978-79.*

Beatrix C. Quintero

Part-time Instructor in Spanish (1977).
B.A., University of Puerto Rico, 1962.

*On leave 1984-85.

***Thomas L. Reed, Jr.**

Associate Professor of English (1977).
B.A., Yale University, 1969; M.A., University of Virginia, 1971; Ph.D., 1978.

George N. Rhyne

Associate Professor of History (1965).
A.B., Davidson College, 1961; M.A., University of North Carolina, 1963; Ph.D., 1968.

David A. Robertson

Part-time Assistant Professor of Fine Arts, Gallery Director (1982).
B.A., University of Missouri, 1973; M.A., 1976; Ph.D., University of Pennsylvania, 1983.

Kim L. Rogers

Assistant Professor of History (1983).
B.A., Florida State University, 1973; M.A., University of Minnesota, 1976; Ph.D. 1982.

Dieter J. Rollfinke

Associate Professor of German (1964).
B.S., Rensselaer Polytechnic Institute, 1963; M.A., Columbia University, 1966; Ph.D., Johns Hopkins University, 1977. *Lindback Award for Distinguished Teaching, 1981-82.*

Gerald C. Roper

Professor of Chemistry (1962).
A.A., Boston University, 1953; B.A., 1956; Ph.D., 1966. *Ganoe Award for Inspirational Teaching, 1979-80.*

Susan D. Rose

Instructor in Sociology (1984).
A.B., Dickinson College, 1977; M.A., Cornell University, 1982.

Kenneth M. Rosen

Professor of English (1969).
B.A., Cornell University, 1959; M.A., San Francisco State University, 1964; Ph.D., University of New Mexico, 1969.

Rosalind D. Rosen

Part-time Instructor in Latin (1970).
B.A., City College of New York, 1962; M.A., University of California at Berkeley, 1963.

S. Ned Rosenbaum

Associate Professor of Religion and Classics (1970).
B.A., Tulane University, 1961; M.A., Brandeis University, 1967; Ph.D., 1974.

Ellen B. Rosenman

Assistant Professor of English (1979).
B.A., Bryn Mawr College, 1973; Ph.D., University of Virginia, 1982.

J. Mark Ruhl

Associate Professor of Political Science, Director of the Dickinson Center for European Studies in Bologna (1975).
B.A., Dickinson College, 1970; M.A., Syracuse University, 1972; Ph.D., 1975.

William R. Schearer

Associate Professor of Chemistry (1968).
B.S., Ursinus College, 1957; M.A., Princeton University, 1959; Ph.D., 1963.

H. Wade Seaford, Jr.

Associate Professor of Anthropology (1961).
A.B., Wheaton College, 1946; Graduate Studies, Escuela Nacional de Antropología e Historia Mexico, 1948-50; A.M., Harvard University, 1964; Ph.D., 1971.

Helen R. Segall

Associate Professor of Russian (1976).
B.S., Simmons College, 1954; Ph.D., Bryn Mawr College, 1974.

****Richard M. Sheeley**

Associate Professor of Chemistry (1969).
B.S., University of Utah, 1957; M.S., Pennsylvania State University, 1959; Ph.D., Brigham Young University, 1964.

James F. Shigley

Instructor in Military Science (1983).
B.A., Pennsylvania State University, 1972; M.A., University of Virginia, 1973; M.A., Johns Hopkins University, 1977. Captain, Adjutant General Corps, U.S. Army.

June L. Shomaker

Part-time Instructor in Cello (1978).
B.Mus., Washington University, 1956.

*On leave 1984-85.

**On leave Second Semester 1984-85.

Robert D. Sider

Charles A. Dana Professor of Classical Languages (1968).

B.A., University of Saskatchewan, 1955; M.A., 1956; B.A., Oxford University, 1958; M.A., 1964; Ph.D., 1965. *Lindback Award for Distinguished Teaching, 1973-74. Ganoe Award for Inspirational Teaching, 1978-79.*

James A. Skelton

Assistant Professor of Psychology (1981).

B.A., Washington & Lee University, 1976; Ph.D., University of Virginia, 1981.

Kenneth S. Slaysman

Assistant Professor of Economics (1984).

B.A., University of Maryland, 1977; Ph.D., Pennsylvania State University, 1983.

Ralph L. Slotten

Professor of Religion (1966).

B.A., Drake University, 1948; B.D., 1951; M.A., University of Chicago, 1958; Ph.D., 1966.

Brenda J. Smith

Instructor in Voice (1983).

B.Mus., University of Evansville, 1973; M. Mus., Westminster Choir College, 1980.

Carol P. Smith

Part-time Assistant Professor of English (1983).

B.A., Thiel College, 1964; M.A., Purdue University, 1965; Ph.D., University of Maryland, 1971.

Gregory J. Smith

Assistant Professor of Psychology (1981).

B.A., Plymouth State College, 1977; M.A., State University of New York at Buffalo, 1980; Ph.D., 1981.

T. Scott Smith

Associate Professor of Physics (1969).

A.B., Princeton University, 1963; Ph.D., University of Maryland, 1967.

Neil Sollenberger

Part-time Instructor in Guitar (1983).

B.S., Gettysburg College, 1980 (1983-84).

Brian D. Stephens

Instructor in Biology (1983).

B.A., Trenton State College, 1977.

Mary Stewart

Part-time Assistant Professor of Fine Arts (1982).

B.F.A., University of New Mexico, 1975; M.F.A., Indiana University, 1980.

Jack R. Stodghill

Associate Professor of Mathematics (1967).

A.B., Wabash College, 1957; M.S., Purdue University, 1960; M.S., Florida State University, 1975; Ph.D., Brown University, 1971.

David G. Strand

Assistant Professor of Political Science (1980).

B.A., Lawrence University, 1971; M.A., Columbia University, 1973; M.Phil., 1974; Ph.D., 1979.

Peter Tallerico

Part-time Instructor in Biology (1983).

B.A., University of Connecticut, 1973; B.S., Marymount College, 1979

Alexei P. Tsvetkov

Assistant Professor of Russian (1981).

Diploma, Moscow State University, 1975; Ph.D., University of Michigan, 1983.

Olga S. Tsvetkov

Assistant Professor of Russian (1981).

B.A., Bryn Mawr College, 1975; M.A., University of Michigan, 1978; Ph.D., 1984.

David C. Ungerer

Professor of Military Science (1983).

B.A., Pennsylvania Military College, 1962; M.A., Boston University, 1973; Lieutenant Colonel, Military Intelligence, U.S. Army.

Thomas Valente

Instructor in Mathematical Sciences (1981).

A.B., Colgate University, 1978; M.A., Wesleyan University, 1980.

Margaret L. Venzke

Assistant Professor of History (1982).

B.A., Western Maryland College, 1969; M.A., Columbia University, 1975; M.Phil., 1976; Ph.D., 1981.

William W. Vernon

Professor of Geology (1957).

B.A., University of New Hampshire, 1952; M.S., Lehigh University, 1955; Ph.D., 1964. *Lindback Award for Distinguished Teaching, 1966-67.*

Christine Vilardo

Assistant Professor of Dance (1982).

B.S., Temple University, 1973; M.E.D., 1976.

Stephen Weinberger

Professor of History (1969).

B.A., Northeastern University, 1965; M.A., University of Wisconsin, 1966; Ph.D., 1969.

Neil B. Weissman

Associate Professor of History (1975).

B.A., Colgate University, 1970; M.A., Princeton University, 1972; Ph.D., 1976.

Candie C. Wilderman

Assistant Professor of Environmental Science (1974).

B.S., Tufts University, 1968; M.A., Harvard University, 1969; Ph.D., Johns Hopkins University, 1984.

Robert P. Winston

Assistant Professor of English (1979).

A.B., Bates College, 1972; M.A., University of Wisconsin, 1973; Ph.D., 1979.

Neil S. Wolf

Professor of Physics (1967).

B.S., Queens College, 1958; M.S., Stevens Institute of Technology, 1960; Ph.D., 1966.

Winifred Woodhull

Assistant Professor of French, Director of the Dickinson Program in Toulouse (1981).

B.A., Pennsylvania State University, 1972; M.A., University of Wisconsin, 1973; Ph.D., 1979.

Craig R. Zabel

Assistant Professor of Fine Arts (1984).

B.A., University of Wisconsin at River Falls, 1977; M.A., University of Illinois, 1979; Ph.D., 1984.

FACULTY SUPPORT**Alan S. Childs**

Assistant to the Professor of Military Science (1982).

B.A., Augusta College, 1978; Major, Signal Corps, U.S. Army.

James E. Covert

Assistant to the Professor of Military Science (1982).

B.S., United States Military Academy, 1976; Captain, Field Artillery, U.S. Army.

ACADEMIC PROFESSIONALS

The date of first appointment to the College appears in parentheses at the end of each individual's title(s). Information is correct as of April 11, 1984.

Robert W. Cavenagh, Jr.

Director of Instructional Media, Part-time Assistant Professor of Fine Arts and Education (1972).

A.B., Princeton University, 1965; M.Ed., University of Virginia, 1970.

***John S. Henderson**

Director of Off-Campus Studies, Part-time Associate Professor of French (1966).

A.B., Bates College, 1961; M.A., Brown University, 1963; Ph.D., 1966.

Marjorie A. Fitzpatrick

Administrative Coordinator for Internships, Part-time Associate Professor of French (1975; 1980).

B.A., College of Our Lady of the Elms, 1957; M.A., Smith College, 1959; Ph.D., University of Toronto, 1968.

David A. Robertson

Gallery Director, Part-time Assistant Professor of Fine Arts (1982).

B.A., University of Missouri, 1973; M.A., 1976; Ph.D., University of Pennsylvania, 1983.

Cecilia Lenk

Coordinator of Academic Computing (1983).

B.A., Johns Hopkins University, 1976; M.A., Harvard University, 1978; Ph.D., 1982.

*On leave First Semester 1984-85.

James B. Drake

Technical Director for the Mermaid Players (1974).
A.B., Dickinson College, 1970.

Library Resources**Joan M. Bechtel**

Librarian (1971).

A.B., Wilson College, 1955; M.S. in L.S., Drexel University, 1971; M.A., University of Pennsylvania, 1978.

***Yates M. Forbis**

Associate Professor of Library Resources (1965).
B.S., Appalachian State Teachers College, 1951; M.A., 1955; M.S. in L.S., Columbia University, 1960.

Ella M. Forsyth

Librarian (1981).

B.Mus., Oberlin College, 1953; M.Mus., Mount St. Mary's College, 1964; M.L.A., University of California at Los Angeles, 1976.

Annette M. LeClair

Librarian (1980).

B.A., University of Minnesota, 1974; M.A., University of Virginia, 1976; M.S. in L.S., University of North Carolina, 1980.

Sue K. Norman

Librarian (1980).

B.A., State University of New York at Albany, 1967; M.A., 1968; M.A., University of Iowa, 1980.

Terrence C. Poe

Librarian (1984).

B.A., University of the South, 1965; M.A., Rutgers University, 1981; M.L.S., 1983.

Alesandra M. Schmidt

Librarian (1982).

B.A., Brown University, 1957; M.A., University of Pennsylvania, 1959; M.L.S., University of Rhode Island, 1981; Ph.D. Bryn Mawr College, 1968.

Martha C. Slotten

Librarian and College Archivist (1974).

B.A., Earlham College, 1943; M.A., University of Wisconsin, 1950; M.A., Shippensburg State College, 1981.

John C. Stachacz

Librarian (1981).

B.A., University of New Mexico, 1975; M.A., University of Kentucky, 1977; M.S. in L.S., 1978.

Physical Education**Kathleen W. Barber**

Physical Educator, Coach of Women's Tennis (1960).

A.B., Syracuse University, 1947.

Joseph G. DuCharme

Associate Professor of Physical Education, Coach of Men's Cross Country and Golf (1955).

B.S. in P.E., Ithaca College, 1948; M.A. in P.E., New York University, 1951.

Raymond T. Erney, Jr.

Physical Educator, Coach of Football and Baseball (1980).

B.A., Juniata College, 1962; M.Ed., Shippensburg State College, 1967.

Wilbur J. Gobrecht

Associate Professor of Physical Education, Coach of Men's Lacrosse (1960).

A.B., Dickinson College, 1952; A.M., Duke University, 1959.

Elaine M. Goldband

Physical Educator, Coach of Women's Volleyball, Facilities Manager (1980).

B.S., Ithaca College, 1971; M.A., Ohio State University, 1972.

Joseph E. McEvoy

Physical Educator, Director of Aquatic Programs, Coach of Men's and Women's Swimming and Diving (1979).

B.S., Springfield College, 1969; M.P.E., 1970; D.P.E., 1975.

Donald J. Nichter

Physical Educator, Director of Recreational Sports, Wellness Program Coordinator (1983).

B.A., Ithaca College, 1979; M.A., Pennsylvania State University, 1983.

*On leave Second Semester 1984-85.

William J. Nickey

*Physical Educator, Assistant Coach of Track and Field, Coach of Men's Soccer (1966).
B.S., West Chester State College, 1957; M.Ed., 1968.*

Robert H. Shank

*Physical Educator, Trainer, Coordinator of Strength and Physical Fitness Programs (1980).
B.S. in Ed., Millersville State College, 1970;
M.Ed., University of Virginia, 1979.*

Lee Ann Wagner

*Physical Educator, Assistant Coach of Women's Field Hockey and Women's Lacrosse (1952; 1966).
B.S., Pennsylvania State University, 1948.*

David L. Watkins

*Physical Educator, Director of Athletics (1967).
B.S., Pennsylvania State University, 1958; M.A., University of Iowa, 1961; Ed.D., Pennsylvania State University, 1983.*

Judith M. Yorio

*Physical Educator, Assistant Director of Athletics, Coach of Women's Basketball (1980).
B.S., Springfield College, 1973; M.S., Southern Connecticut State College, 1980.*

ADMINISTRATION

The date of first appointment to the College appears in parentheses at the end of each individual's title(s). Information is correct as of April 11, 1984.

Office of the President**Samuel Alston Banks**

*The President of the College, Lemuel T. Appold Foundation (1975).
A.B., Duke University, 1949; M.Div., Emory University, 1952; Ph.D., University of Chicago, 1971; Litt.D., College of Charleston, 1976.*

M. Charles Seller

*Executive Assistant to the President, Secretary of the College (1975).
A.B., Dickinson College, 1955; M.A., Pennsylvania State University, 1963.*

Benjamin D. James

Richard V.C. Watkins Professor Emeritus of Psychology and Education, Presidential Representative (1941).

A.B., Dickinson College, 1934; M.A., Bucknell University, 1936; Ph.D., University of Pennsylvania, 1962; LL.D., Dickinson School of Law, 1976.

George Shuman, Jr.

*Vice President Emeritus, Presidential Representative (1935).
Ph.B., Dickinson College, 1937; LL.D., Lycoming College, 1958.*

Computer Services Center**Thomas W. Burtnett**

*Director of Computer Services (1976).
B.S., Pennsylvania State University, 1964; M.S., Case Western Reserve University, 1965.*

Robert A. Riley

*Assistant Director of Computer Services (1978).
B.S., Elizabethtown College, 1976.*

Cecilia Lenk

*Coordinator of Academic Computing (1983).
B.A., Johns Hopkins University, 1976; M.A., Harvard University, 1978; Ph.D., 1982.*

Barbara Tate

*Coordinator of Administrative Computing (1983).
B.S., Marywood College, 1981.*

John R. Luthy

*Programmer (1981).
A.B., Dickinson College, 1974.*

Donald B. Newcomer

*Programmer (1982).
B.S., Lebanon Valley College, 1979.*

Division of Academic Affairs**George Allan**

Dean of the College, Russell I. Thompson Chair of the Dean of the College, Part-time Professor of Philosophy (1963).

B.A., Grinnell College, 1957; B.D., Union Theological Seminary, 1960; Ph.D., Yale University, 1963; Lindback Award for Distinguished Teaching, 1968-69.

Ronald E. Doernbach

Registrar, Coordinator of Institutional Data Analysis (1974).
A.B., Dickinson College, 1965.

Susan F. Nichols

Associate Dean of the College, Part-time Instructor in Fine Arts (1977).
B.A., State University of Iowa, 1960; M.A., 1967.

Margaret D. Garrett

Associate Dean for Academic Programs (1976).
B.A., Illinois State University, 1957; M.A., Northwestern University, 1971; Ph.D., George Washington University, 1978.

Mary Elizabeth Kirtley

Director of Graduate Decisions, Research Professor of Biological Chemistry (1984).
B.A., University of Chicago, 1956; M.A., Smith College, 1958; Ph.D., Western Reserve University, 1964.

Office of Admissions**J. Larry Mench**

Director of Admissions (1974).
B.A., Oberlin College, 1962; M.A., 1963.

R. Russell Shunk

Associate Director of Admissions (1976).
A.B., Lafayette College, 1965; M.A., Lehigh University, 1966.

James M. Reilly

Associate Director of Admissions (1977).
A.B., Dickinson College, 1977.

Jarrel L. Tackett

Admissions Counselor (1983).
B.S., Dickinson College, 1983.

Kristina L. Groover

Admissions Counselor (1983).
B.A., Dickinson College, 1983.

Division of Educational Services**Leonard S. Goldberg**

Dean of Educational Services (1977).
B.A., State University of New York at Oswego, 1964; M.A., Ohio State University, 1966; Ph.D., 1969.

Mary Watson Carson

Associate Dean of Educational Services, The George Metzger Chair of the Dean of Women (1968).

B.A., Wichita State University, 1959; M.A., 1960.

John W. Hershey

Director of Residential Life (1981).
A.B., Hobart and William Smith Colleges, 1971; M.Div., Princeton Theological Seminary, 1974.

***Stephen O. Mason**

Associate Dean of Residential Services (1983).
B.A., Bridgewater College, 1974; M.Ed., James Madison University, 1979. (1983-84).

Davis C. Tracy

Director of the Counseling and Career Center (1982).
B.A., Lehigh University, 1970; M.A., University of Connecticut, 1974; Ph.D., University of Tennessee, 1981.

****Geraldine M. Rockett**

Counselor (1979).
B.A., Mount St. Mary College, 1972; M.A., Southern Illinois University, 1977; M.S., 1979.

Diane L. Jefferson

Counselor and Coordinator of Minority Affairs (1982).
B.A., Shippensburg State University, 1976; M.S., University of Northern Iowa, 1978.

Karen B. Andrews

Counselor for Placement Decisions (1983).
B.A., Ohio State University, 1977; M.Ed., Georgia State University, 1982.

Nancy B. Lindgren

Director of the Holland Union Building and Coordinator of Summer Conferences (1980).
B.S., Springfield College, 1974; M.Ed., 1976.

Nina M. Shover

Residential Area Director (1983).
B.S., Elizabethtown College, 1980; M.S., Shippensburg University, 1982.

*Served in this position during 1983-84 when John W. Hershey, then Associate Dean of Residential Services, was on a leave of absence from the College.

**On leave 1984-85.

James A. Mitchell

Residential Area Coordinator and Sports Information Director (1983).

B.A., University of Massachusetts, 1981; M.A., Boston College, 1983.

Donald V. Raley

Director of Financial Aid (1977).

B.A., Blackburn College, 1960; M.A., University of Colorado, 1967.

Kathryn H. White

Assistant Director of Financial Aid (1981).

A.B., Wilson College, 1976.

Sally R. Biel

Part-time Financial Aid Counselor (1980).

B.S., Juniata College, 1970; M.S. in L.S., Shippensburg State College, 1976.

Mary Anne Morefield

Chaplain and Coordinator of Religious Activities (1979).

B.A., Goddard College, 1965; M.Div., Lutheran Theological Seminary, 1974; D.Min., Boston University, 1982.

***Mary A. Powell**

Director of Health Services (1982).

R.N., Norwalk Hospital School of Nursing, 1970; B.S., Nurse Practitioner Certificate, George Washington University, 1978.

***John E. Ricks**

Director of Emergency Services (1982).

B.S., Northwestern University, 1967; Ph.D., 1970; M.D., 1972.

David L. Watkins

Physical Educator, Director of Athletics (1967).

B.S., Pennsylvania State University, 1958; M.A., University of Iowa, 1961, Ed.D., Pennsylvania State University, 1983.

*Several nurses work with Nurse Powell and Dr. Ricks at the Health Center, and other physicians are associated with the Center through special arrangements with the Carlisle Hospital, where 24-hour care is available to students in each academic term.

Division of Business and Financial Affairs**James M. Nicholson**

Treasurer (1978).

B.A., Cornell College, 1959.

Robert W. Belyea

Assistant Treasurer (1968).

B.A., Colby College, 1951.

Barry L. Gaal

Business Manager (1971).

B.S., Moravian College, 1961.

Harold S. Fraker, Jr.

Manager of Accounting (1979).

B.S., Shippensburg State College, 1974.

Stephen J. Frost

Purchasing Agent (1984).

A.A., City Colleges of Chicago, 1983.

Robert H. Rasch

Director of Personnel (1973).

B.S., University of Rhode Island, 1965; M.B.A., Western New England College, 1973.

Howard G. Baum

Director of Auxiliary Services (1964).

A.B., Dickinson College, 1950.

George L. Eurich

Director of Physical Plant (1970).

Michael J. Netto

Director of Food Services (1980).

A.S., University of Massachusetts, 1967.

Ernest E. Talbot

Director of Campus Security (1971).

Division of Communications and Development**Robert O. White**

Executive Director of Communications and Development (1983).

A.B., College of William and Mary, 1964; M.Ed., Rutgers University, 1976.

Jeanne L. Narum

Director of Development (1983).

B.M., St. Olaf College, 1957.

Deborah Fulham-Winston

Director of Annual Giving (1982).

B.A., College of Holy Cross, 1974.

Karen A. Vagts

Assistant Director of Development/Research (1983).

B.A., Harvard University, 1979; M.B.A., University of Michigan, 1981.

R. Bruce Wall

Director of Alumni Relations (1977).

A.B., Dickinson College, 1970; M.A., Bowling Green State University, 1975.

Ann Hess Myers

Assistant Director of Alumni Relations (1982).

B.A., Kenyon College, 1979.

Philip G. Benoit

Director of Communications (1984).

A.B., St. Lawrence University, 1966; M.A., State University of New York at Oswego, 1973.

Patricia Lawson

Assistant Director of Communications (1983).

B.A., Eastern Connecticut State University, 1976; M.S., Syracuse University, 1978.

Nancy Lee Winkelman

Director of Publications (1975).

B.A., Western Maryland College; 1951; M.Ed., 1969.

Kelly A. Alsedek

Assistant Director of Publications (1983).

B.A., Gettysburg College, 1971.

Board of Advisors

The purposes of the Board of Advisors are to provide consultation and advice to the president of the College and to the Board of Trustees in matters relating to the total educational program, the development of the College's physical and financial resources, and the securing of highest quality students for admission to the College. Alumni, parents of present or former students, and other individual friends of the College are eligible for membership. Appointments to the Board of Advisors are made by the president of the Board of Trustees. Information is correct as of April 11, 1984.

Officers

Nelson G. Harris

Chairman

Members

Norman R. Bitterman

Senior Vice President

Philadelphia Saving Fund Society

Philadelphia, Pa.

C. Paul Burtner, Jr. '41

Colonel, U.S. Army (Ret.)

Potomac, Md.

Philip C. Capice '52

Executive Producer

Lorimar Productions

Culver City, Calif.

Fred J. Charley '38

President

Charley Brothers Division

Greensburg, Pa.

Robert H. Clarke '80

Director

Greenwich International

Greenwich, Conn.

Homer C. Earll

President

Earll Forest Products, Inc.

Towson, Md.

Frank B. Fisher

President

BancOhio National Bank

Cleveland, Oh.

Daniel R. Gilbert, Jr. '74
Graduate School of Management
University of Minnesota
Minneapolis, Mn.

Ira D. Glick '57
Payne Whitney Psychiatric Clinic
New York Hospital, Cornell Medical Center
New York, N.Y.

Nelson G. Harris
President
Tasty Baking Company
Philadelphia, Pa.

Lee H. Javitch
Harrisburg, Pa.

Hesung Chun Koh '51
Director
East Asian Area Research
Human Relations Area Files, Inc.
New Haven, Ct.

Samuel J. McCartney, Jr. '41
Vice President, Human Relations
Lanier Business Products
Atlanta, Ga.

Bonnie D. Menaker '61
Partner
Hepford, Swartz, Menaker & Wilt
Harrisburg, Pa.

Eleanor Pocius Merrill '55
The Washingtonian
Washington, D.C.

James G. Park '52
Executive Vice President & General Counsel
Union Electric Steel Corporation
Carnegie, Pa.

Meyer P. Potamkin, '32
President
Boulevard Mortgage Co.
Philadelphia, Pa.

John P. Puckett, Jr.
President, Systems Unit
Leeds & Northrup Company
North Wales, Pa.

Sylvia H. Rambo '58
U. S. District Judge
Harrisburg, Pa.

Harry C. Rubicam
Director of Communications for the Magazine Group
TIME, Inc.
New York, N.Y.

Herbert S. Sacks '48
Clinical Professor Pediatrics and Psychiatry
Yale University Child Study Center
New Haven, Conn.

Norman J. Schatz '57
Wills Eye Hospital
Philadelphia, Pa.

Ann R. Sorgenti
Haverford, Pa.

Robert J. Wise '53
President
Key Point Corporation
Berwick, Pa.

Ray L. Wolfe
President
Farmers Trust Company
Carlisle, Pa.

Robert A. Worthington '60
Director Planning & Governmental Affairs
Opus Corporation
Minneapolis, Minn.

Alumni Council

The Alumni Council is the governing body of the General Alumni Association of Dickinson College. The council is composed of thirty members, elected or appointed for three year terms, and membership is open to all alumni. The alumni council acts as a decision making body on issues and programs directly affecting the alumni program, and as an advisory board on matters of College policy or procedure. The council meets on campus at least twice a year, and additionally at the discretion of its president.

Alumni Trustees

Ruth S. Spangler '35
(Term expires 1985)
3725 Elder Road
Harrisburg, Pa. 17111
717-564-0229

Lester T. Etter '34
(Term expires 1986)
717 Noble Drive
Carlisle, Pa. 17013
717-243-5113

James W. Gerlach '77
(Term expires 1987)
Woodmont North, F22
Winding Way
Downington, Pa. 19335
215-873-1212

*Note: elections in progress at time of printing for Trustee whose term expires 1988.

Officers (elections in progress at time of printing)

President
Vice President
Secretary

Term Expires 1985

Earl Barnhart, D.D.S. '54
901 Glendale Court
Carlisle, Pa. 17013
717-249-1347

Rosalie Dunkle '50
3609 Canterbury Road
Harrisburg, Pa. 17109
717-545-9355

John Gordner '83
Dickinson School of Law
Box 245
Carlisle, Pa. 17013
717-249-7198

Mark I. Lehman '71
561 Bradford Avenue
Westfield, N.J. 07090
212-262-6830

Patricia A. Love '74
549 Mountainview Road
Middletown, Pa. 17057
717-761-5660

Edmund G. Myers, Esq. '68
2013 Yale Avenue
Camp Hill, Pa. 17011
717-761-4540

Ralph E. Owen '54
2 Cambridge Road
Turnersville, N.J. 08012
609-228-4865

Virginia Rahal '52
328 West Willow Street
Carlisle, Pa. 17013
717-243-5967

Sharon E. Sievers '70
1400 South Joyce Street, A-708
Arlington, Va. 22202
202-965-3434

Jace J. Wagner '79
422 South Carisle Street
Philadelphia, Pa. 19146
215-546-0907

Term Expires 1986

James G. Bowers '51
558 West Penn Street
Carlisle, Pa. 17013
717-243-4429

Joseph T. Clees '81
1300 Cedar Road
Ambler, Pa. 19002
215-665-0400

Ann Curley '63
6007 Overlea Road
Bethesda, Md. 20816
301-229-4277

Pamela Evans '50
2301 Oakwood Avenue
Harrisburg, Pa. 17104
717-232-0310

Charles Fromer '62
P.O. Box 1186
Harrisburg, Pa. 17108
717-761-0834

Dr. Benjamin D. James '34
355 Graham Street
Carlisle, Pa. 17013
717-243-3167

Sandra Kemp '84
122 Rosemont Avenue
Ridley Park, Pa. 19078
215-521-2528

Dr. Horace E. Rogers '24
900 West South Street
Carlisle, Pa. 17013
717-243-5048

Clifton Shannon '73
1137 North Highland Avenue, #11
Pittsburgh, Pa. 15206
412-363-1973

Roberta Zmuda
1719 Corcoran Street, N.W.
Washington, D.C. 20009
202-463-4433

Term Expires 1987: elections in progress at time of printing

Parents Advisory Council

Dickinson's Parents Advisory Council members serve as liaison between the College administration and the general parent body. They act as informal admissions representatives of Dickinson and may be contacted by those who desire information about the College from a parent's perspective.

Term Expires 1985

Mr. and Mrs. Richard B. Fitzpatrick
4 Clover Lane
Rumson, N.J.
201-747-9763

Mr. and Mrs. William M. Green
61 North Greenwich Road
Armonk, N.Y. 10504
914-273-3756

Mr. and Mrs. Glenn L. Hormel
373 Barberry Drive
Hanover, Pa. 17331
717-632-8858

Mr. and Mrs. Ernest C. Hutchinson
Village Lane
Burlington, Ct. 06013
203-673-9289

Mr. and Mrs. Lawrence A. Hymo
9414 Macklin Court
Alexandria, Va. 22309
703-780-8716

Mr. and Mrs. Robert L. Jones
40 Yeager Avenue
Forty Fort, Pa. 18704
717-288-5841

The Rev. and Mrs. Sunoon Kim
1320 King Road
Huntingdon Valley, Pa. 19006
215-885-6937

Mr. and Mrs. Peter M. Klein
42 Billingsley Drive
Livingston, N.J. 07039
201-994-2258

Mr. and Mrs. Herbert E. Krauss
Miller Drive, R.D. #2
Boonton, N.J. 07005
201-334-2746

Mr. and Mrs. John H. Radcliffe
2 Travilah Terrace
Potomac, Md. 20854
301-977-1776

Dr. and Mrs. Ernest F. Reigh
R.D. 3, Box 836
Mohnton, Pa. 19540
215-775-0401

Mr. and Mrs. David T. Riddiford
1 Old South Lane
Andover, Ma. 01810
617-475-5258

Mr. and Mrs. Arnold W. Spelker
71 Woodland Road
Madison, N.J. 07940
201-822-3053

Term Expires 1986

Dr. and Mrs. Edward G. Daily
801 Indiana Avenue
Lemoyne, Pa. 17043
717-761-0323

The Rev. and Mrs. C. Edward Geiger
10 West Possum Hollow Road
Wallingford, Pa. 19086
215-566-1949

Mr. and Mrs. John F.X. Irving
24 Apple Tree Lane
Basking Ridge, N.J. 07920
201-766-5031

Mrs. Sidney D. Kline
21 Merrymount Road
Reading, Pa. 19609
215-678-3201

Mr. and Mrs. Joseph M. Metro
2824 Columbia Avenue
Camp Hill, Pa. 17011
717-737-5524

Dr. and Mrs. Anastasios J. Tousimis
11504 Stonewood Lane
Rockville, Md. 20852
301-881-7190

Mr. and Mrs. Elliott C. Trommald
P.O. Box 392
Blairstown, N.J. 07825
201-362-6421

Mr. and Mrs. James V. Voss
851 Twelfth Street
Oakmont, Pa. 15139
412-828-6611

Mr. and Mrs. Kenneth Wolfe
241 Crooked Lane
Lebanon, Pa. 17042
717-273-7891

Term Expires 1987

Mr. and Mrs. Nevius M. Curtis
1912 Academy Place
Wilmington, De. 19806
302-655-8676

Mr. and Mrs. Robert C. Kline
463C Hollow Road, R.D. 2
Phoenixville, Pa. 19460
215-933-4873

Dr. Barbara Kunkel
1303 Crumsmill Road
Harrisburg, Pa. 17112
717-545-0391

Mr. John Vanderstar
1111 Army Navy Drive, Apt. C312
Arlington, Va. 22202
703-521-3465
Mrs. Beth Vanderstar
5060 Overlook Road
Washington, D.C. 20016
202-686-0032

Honors, Awards, and Prizes

Awards to Members of the Faculty

The Lindback Award for Distinguished Teaching. The Christian R. and Mary F. Lindback Foundation instituted this annual award at Dickinson beginning in 1961 as the highest honor the College bestows on members of its faculty.

Selected by the president, the award winner receives a cash honorarium as well as a citation prepared and read by the dean of the college at a dinner for trustees, faculty, and administrators just prior to each Commencement Weekend.

The Lindback Foundation also awards scholarships to students at Dickinson who are selected on the basis of criteria specified by the Foundation.

Previous winners of the Lindback Award for Distinguished Teaching are so identified in the faculty section of the directory in this catalogue.

The Ganoe Award for Inspirational Teaching. The Constance and Rose Ganoe Memorial Fund established in 1969 through a bequest of the late William A. Ganoe of the Class of 1902 provides that an award be given annually to a professor at the College selected by the members of the senior class immediately prior to their graduation through a secret balloting process.

The award winner receives a cash honorarium plus the opportunity to use funds accumulating as a result of the endowment supporting the award for the enrichment of his or her teaching and of the academic program at Dickinson.

Previous winners of the Ganoe Award for Inspirational Teaching are so identified in the faculty section of the directory in this catalogue.

Endowed and Named Chairs

The College has a number of endowed and named chairs. The holders of these chairs are elected by the board of trustees and the chairs which they hold are indicated in the faculty list. The endowed chairs are as follows:

The Lemuel T. Appold Foundation, endowing the chair of the president of the College, was established by the board of trustees from a part of a bequest of Lemuel T. Appold of Baltimore, Maryland, of the Class of 1882 and a generous benefactor of the College.

The Robert Coleman Chair of History. The bequest of Robert Coleman, Esq., of Lancaster, Pennsylvania, was designated by the board of trustees in 1827 for the endowment of a professorship, making this one of the oldest American professorships.

The Thomas Beaver Chair of English Literature was endowed by Thomas Beaver, Esq., of Danville, Pennsylvania, in 1889.

The Asbury J. Clarke Chair of Latin was established in 1918 by the gift of the widow of Asbury J. Clarke, of the Class of 1863.

The Susan Powers Hoffman Chair of Mathematics was endowed in 1923 and named in memory of Susan Powers Hoffman, of Carlisle.

The Richard V.C. Watkins Chair of Psychology was endowed in 1928 by the bequest of Richard V.C. Watkins, of the Class of 1912.

The Martha Porter Sellers Chair of Rhetoric and the English Language is an endowed professorship established in 1936 by a gift of her son, Prof. Montgomery Porter Sellers, of the Class of 1893.

The Boyd Lee Spahr Chair of American History was endowed in 1948 by the gift of Boyd Lee Spahr, of the Class of 1900.

The George Henry Ketterer and Bertha Curry Ketterer Chair of Religion was endowed in 1949 by the gifts of George Henry Ketterer, of the Class of 1908, and his wife, Bertha Curry Ketterer.

The Robert Blaine Weaver Chair of Political Science was endowed by the bequest of Laura Davidson Weaver, and named for her brother, Robert Blaine Weaver, of the Class of 1874.

The C. Scott Althouse Chair of Chemistry was established in 1950 and named for C. Scott Althouse, a trustee of the College.

The Alfred Victor duPont Chair of Chemistry, named for Alfred Victor duPont, a student at the College, 1814-16, was established in 1950 by the gift of his grandson, the late Irene duPont, of Wilmington, Delaware.

The Thomas Bowman Chair of Religion was endowed in 1949 by the gift of the Kresge Foundation (Sebastian S. Kresge, L.H.D., Founder), and named for Thomas Bowman of the Class of 1837, the first graduate of Dickinson College to be elected a Bishop of the Methodist Episcopal Church.

The Joseph Priestly Chair of Natural Philosophy was established in 1959 by the gifts of William H. Baker and S. Walter Stauffer in memory of Salome Baker Stauffer.

The William W. Edel Chair in the Humanities was endowed in 1959 by the gift of Merle W. Allen, a College trustee, and his wife, Elizabeth Frederick Allen, "in recognition and commemoration of Dr. Edel's outstanding leadership as president of the College from 1946-1959."

The James Hope Caldwell Memorial Chair was endowed in 1966 by the bequest of Mr. and Mrs. James Hope Caldwell.

The Henry Logan Chair of Economics was established in 1967 by the gift of Henry Logan of the Class of 1910.

The Russell I. Thompson Chair of the Dean of the College was established in 1967 by the gift of Ethel Wright Thompson.

The George W. Pedlow, Class of 1901, Chair of Education was established in 1972 in memory of their father by C. Wesley Pedlow, Jr., of the Class of 1934; Elizabeth Pedlow Maginnis, of the Class of 1929; and John Watson Pedlow, of the Class of 1929.

The Glenn E. and Mary L. Todd Chair was established in 1973 by the bequests of Glenn E. Todd, Class of 1912, and Mary Line Todd, Class of 1923.

The Charles A. Dana Professorship Program was established in 1968 by a matching grant of \$250,000 from the Charles A. Dana Foundation. The income from this fund is to be used annually to subsidize the salaries of Dana Professors in varying amounts but in excess of the average salary for full professors at the time of the appointment.

The George Metzger Endowment Fund is held in trust by the trustees of the fund, and the income therefrom paid annually to Dickinson College at the discretion of the trustees to endow the chair of the dean of women at Dickinson College.

The George Metzger Endowment Fund was established in 1963 by the Metzger College trustees in memory of George Metzger of the Class of 1798 of Dickinson College who made a testamentary provision for the establishment of a college for the education of young women after his death. By the action of the board of trustees of Metzger College in 1913, use of Metzger College, Metzger Hall, was granted to Dickinson College as a residence hall for women students. Fifty years later, Dickinson relinquished its use of Metzger Hall, the property was sold, and the proceeds used to establish the George Metzger Endowment Fund.

Honors, Scholarships, and Prizes

Honors Upon Graduation

Latin Honors. A student who attains an average of at least 3.75 in the total program at Dickinson College shall be awarded the degree *summa cum laude*.

A student who attains an average of at least 3.50 but less than 3.75 in the total program at

Dickinson College shall be awarded the degree *magna cum laude*.

A student who attains an average of at least 3.25 but less than 3.50 in the total program at Dickinson College shall be awarded the degree *cum laude*.

Departmental Honors Departmental Honors are conferred at graduation upon students who meet the departmental standards for graduation with honors. Honors are achieved through independent research and study in the department.

For General Excellence

The Class of 1902 Award Awarded to that member of the junior class who, by vote of the student's classmates, has contributed most to the College.

The Hufstader Senior Prize Endowed by Dr. William F. Hufstader. Awarded to the senior man and woman who, in the judgment of the president of the College, has contributed most to the good of the College.

For Scholastic Excellence

The College Committee on Academic Standards has the responsibility of recommending recipients of these awards to the faculty. The committee has established as a guideline for eligibility for the various class awards the following: completion of 6, 12, 18, or 24 Dickinson courses with a final letter grade in order to be eligible for freshman, sophomore, junior, or senior awards, respectively.

The James Fowler Rusling Prize. Awarded to a graduating senior who excels in scholarship.

The Delaplaine McDaniel Prizes. Awarded to two members of the freshman class and to one member of the sophomore class for excellence in scholarship.

The Joseph Middleton and Isabel Mullin Burns Memorial Prize. Endowed by Helen Burns Norcross '12, former dean of women. Awarded to the woman student attaining the highest scholastic average during the sophomore year.

The John Patton Memorial Prize. Endowed by the Honorable A.E. Patton as a memorial to his

father. Awarded for high scholastic standing to a member of each college class.

Sophisters. By action of the board of trustees, and in keeping with an old Dickinson tradition, the highest ranking junior is named Senior Sophister for his or her final year in the College, while the highest ranking sophomore is named the Junior Sophister for the following year. The distinction of Senior and Junior Sophister carries with it a \$500 prize.

For Excellence in Special Fields

The Alliance Francaise Medal for Excellence in French. Awarded to a senior who has excelled in French language and culture.

The Paul F. Angiolillo Prize. Awarded annually for excellence in Italian Studies. Endowed by friends and alumni.

The Atlantic Richfield Foundation Geology Prize. Endowed by a gift from the Atlantic Richfield Foundation and awarded to an outstanding geology major at the end of the junior year to fund their research.

The William Lennox Avis Prize in U.S. History. Endowed by Minnie Woods Avis.

The Baird Biology Prizes. In honor of Spencer Fullerton Baird, Dickinson's most outstanding alumnus in the field of biology. Awarded to two senior biology majors who excel in biology and show promise for future achievement in the field of biology (broadly defined).

The Neilson C. Bridger Memorial Art Prize. Endowed by Dr. Meyer P. Potamkin '32. The award is given annually to the fine arts major who, in the judgment of the fine arts faculty, has achieved the highest level of creative arts expression or art historical scholarship during the current academic year. The award may be shared.

The Henry P. Cannon Memorial Prize. Endowed by the trustees. Awarded to a member of the sophomore class who excels in mathematics.

The Chi Omega Prize. The gift of the Dickinson Chapter. Awarded to a junior or senior woman

who excels in economics, political science, sociology, or psychology.

The Class of 1875 Prize. Endowed in memory of John H. Ahl, Class of 1875, by his son John C. Ahl. Awarded to the senior who compiles the highest average in economics.

The Class of 1914 Prize. Endowed in memory of John C. Ahl. Awarded to the member of the senior class who excels in American history.

The Forrest E. Craver Memorial Mathematics Prize. Awarded to a member of the junior class.

The Mervin Grant Filler Memorial Prize. Endowed by Tolbert J. Scholl. Awarded for excellence in the classical languages.

The Fine Arts Society Prize. Awarded to a senior fine arts major for superior scholarship in art history or exceptional creative visual expression.

The C.W. Fink Memorial Economics Prize.

The Ganoe Prize in International Studies. Awarded to the senior achieving highest honors in international studies.

The Gould Memorial Drama Prize. Provided by Dr. Herbert M. Gould in memory of his father and mother.

The Charles Mortimer Griffin Prize. Awarded to a member of the senior class for excellence in religion.

The Wilbur Harrington and Helen Burns Norcross Prize. Awarded for excellence in psychology during the junior year.

Jeanette Holzshu Memorial Prize in American Literature.

The Caroline Kennedy French Literature Prize. Endowed by friends. Awarded annually to a student who reads French easily and who takes delight in French literature.

The William W. Landis Memorial Prize in Mathematics. Endowed by George C. Landis '20. Awarded to a member of the freshman class.

The Landis-Mohler Prize in Physics. Endowed by George G. Landis '20 in memory of Prof. John Frederick Mohler, professor of physics, 1896-1930. Awarded to a member of the freshman class.

The Ruth Sellers Maxwell Scholarship in English Literature. Endowed by Robert H. Maxwell '51 in memory of his wife.

The Alice and F. Chapline Moorehead-Barbara Elder Timberlake Award. Endowed as a memorial by Caroline Moorehead Elder. Awarded to that student who submits the best piece of verse.

The Joseph J. Myers Prize. To be awarded annually to a varsity basketball player achieving academic excellence. Endowed in honor of Joseph J. Myers, Class of 1932, by his wife, Marie Moore Myers, and his brother, Charles E. Myers.

The Wellington A. Parlin Science Scholarship Award. Awarded to that junior majoring in biology, chemistry, or physics, who has, during three years at Dickinson, attained the highest scholastic average.

The Gaylard H. Patterson Memorial Prize. Awarded to that student in sociology who presents the best sociological analysis of a public policy.

The Pennsylvania Institute of Certified Public Accountants Award. Awarded to the outstanding accounting student.

The Ron Phillis Memorial Prize. Endowed by members of the Alpha Sigma chapter of Beta Theta Pi and other alumni and friends. Awarded to the outstanding student majoring in the field of biology and having the highest average in that field at the end of the sophomore year.

The Morris W. Prince History Award. Endowed by the Class of 1899.

The Margaret McAlpin Ramos Award. Awarded to a junior or senior Spanish major.

The Carl A. Rhoades Memorial Prize. Awarded annually to one or more students demonstrating outstanding responsibility as members of the College food service.

The Christopher Lee Roberts Prize. For students in Latin or Greek, to be used to study abroad in those fields.

The Winfield Davidson Walkley Prizes. Endowed by D.R. Walkley, D.C.L., in memory of his son. Awarded to two members of the freshman class who excel in declamation, either forensic or dramatic.

The Richard H. Wanner Prize in Psychology. Awarded to an outstanding junior in the Department of Psychology and Education. Endowed by friends and alumni.

The Angeline Blake Womer Memorial Prize. Awarded each year to that member of the freshman class who attains the highest grade in rhetoric and composition.

The Agnes Sterrett Woods Prize. Awarded to a woman student for the best short story or essay.

John David Wright, III, Memorial Prize in Classical Languages. To be awarded to a freshman studying Latin or Greek.

Scholarships

An abbreviated listing of endowed and unendowed scholarships follows. Complete descriptions of each, including restrictions, etc., are contained in the official records of the College and administered accordingly.

Almost all of the scholarships at Dickinson are awarded on the basis of financial need as part of a student's general financial aid package. The College also offers substantial additional grant aid beyond the named scholarships listed here.

Unendowed

The Susan Hutton Brenner Scholarship. Provided by Dr. Susan H. Brenner to aid students interested in medicine as a career.

Central Pennsylvania United Methodist Conference Scholarships. To members of churches of the Central Pennsylvania Conference. Interested students must apply to the conference.

The Mary Dickinson Club Scholarships of \$500 per year were established in 1960 to be awarded

to outstanding students who have financial need. Renewable for subsequent years providing financial need continues, exemplary campus citizenship is maintained, and above-average grades are earned.

The James S. Kemper Foundation Scholarships. Established by annual grants from the James S. Kemper Foundation. Awards are made to worthy undergraduate students interested in pursuing careers in insurance.

The Lindback Scholarship Prizes. Provided by the trustees of the Christian R. and Mary F. Lindback Foundation to help deserving students who are residents of New Jersey, Pennsylvania, Delaware, and Maryland, without regard to race or religious affiliation, who by reason of their scholastic attainment, character, personality, and all around ability, give great promise of benefiting therefrom and of being useful and valuable citizens of their communities. The selection is not made on the basis of scholarship alone.

The Myrl S. Myers Memorial Scholarship. Provided by Alice Brown Myers in memory of her husband.

The N.J. Conference of the United Methodist Church Scholarship. Provided by the Commission on Higher Education of the New Jersey Conference. Given to a student who has been a member of a United Methodist Church within the bounds of the Conference.

The Omicron Delta Kappa Award for Leadership—an award established by the Dickinson College circle of Omicron Delta Kappa to recognize outstanding leadership and commitment to the college community by a black underclassman.

United Methodist Scholarships. Provided by the Board of Education of the United Methodist Church. Given to a student on recommendation from the pastor of the student's home church who has interest and experience in United Methodist activities, and attained high scholarship.

The U.S. Army R.O.T.C. Scholarships. Awarded to outstanding sophomore military

science students who desire a career as officers in the United States Army.

Endowed

The John M. Arters Scholarship. Endowed by Dr. John M. Arters, Class of 1899. Awarded to students planning to enter the ministry of the United Methodist Church with preference given to young men from Maryland, Delaware, or Maine. The College makes available funds equal to the amount of this scholarship for female students eligible for financial aid.

The Leo Asbell Memorial Scholarship. Endowed by the Asbell family. Preference given to a resident of southern New Jersey.

The Atlantic Richfield Foundation Scholarship. Endowed by a gift from the Atlantic Richfield Foundation for geology majors.

The Baldwin Memorial Church Scholarship.

The M. Grace Bechtel Memorial Scholarship. Awarded to a student preparing for the ministry of the Central Pennsylvania Conference of The United Methodist Church.

The Willard E. and Helen T. Bittle Scholarship. Endowed by a bequest from the estate of Willard E. Bittle of the Class of 1927. Preference is given to student majoring in economics.

The Bodine Scholarship. Endowed by George I. Bodine, Jr., Esq.

The Priscilla Bradley Scholarship. Endowed by Frank J. Bradley in memory of his wife, Priscilla Charles Bradley, Class of 1932. Awarded to students majoring in mathematics who have demonstrated financial need and above average academic achievement.

The George L. Brown Scholarship. Preference given first to male students from Middle Paxton Township, Dauphin County, Pa.; secondly, to male students from Susquehanna Township, Dauphin County, Pa.; and lastly, to other worthy and eligible male students. The College makes available funds equal to the amount of this scholarship for female students eligible for financial aid.

The Henry D. Bruner Scholarship. Endowed by a bequest from the estate of Henry B. Bruner. Preference given to male residents of Columbia, Pa. who satisfy specified criteria: membership of the First Methodist Church in Columbia; membership of another Methodist church in Columbia; graduate of Columbia Borough High School. The College makes available funds equal to the amount of this scholarship for female students eligible for financial aid.

The Lloyd A. and Mabel K. Burkholder Fund provides permanent endowment for the Lloyd A. and Mabel K. Burkholder Scholarship and the Lloyd A. and Mabel K. Burkholder Public Affairs Symposium at Dickinson College.

The Carlisle Corporation Scholarships. Preference given to children of employees of Carlisle Corporation, then to residents of Carlisle or adjacent territory; and lastly to other eligible students.

The Caroline Hatton Clark Mathematics Scholarships. Awarded for outstanding achievement in mathematics.

The Class of 1909 Scholarship. Preference given to a descendant of the Class of 1909.

The Class of 1914 Scholarship.

The Class of 1915 Scholarship. Preference given to a descendant of the Class of 1915.

The Class of 1917 Scholarship. Preference given to a descendant of the Class of 1917.

The Class of 1918 Scholarship. Preference given to a descendant of the Class of 1918.

The Class of 1920 Scholarship. Endowed by a bequest from the estate of Mildred Conklin Page, Class of 1920.

The Class of 1921 Scholarship. Preference given to a descendant of the Class of 1921.

The Class of 1928 Scholarship. Preference given to a descendant of the Class of 1928.

The Class of 1930 Scholarship. Preference given to a descendant of the Class of 1930.

The Class of 1935 Red Malcolm Scholarship. Preference given to a descendant of the Class of 1935.

The Class of 1938 Scholarship.

The Class of 1960 Dr. Gilbert Malcolm Scholarship.

The Joel Claster Memorial Scholarship. Endowed by the Claster family and friends.

The Joseph and Mary Strong Clemens Scholarship. Endowed by Joseph Clemens. Awarded to students studying for the ministry of The United Methodist Church.

The Carrie A.W. Cobb Scholarship. Endowed in memory of the Reverend Charles H. Rorer, D.D. Awarded to students preparing for the ministry.

The John O. Cockey, Jr. Memorial Scholarship. Endowed by John O. Cockey and Mrs. R.M. Sheridan.

The Moncure Daniel Conway Scholarship. Established by gift of Eleanor Conway Sawyer, granddaughter of Moncure Conway.

The Eleanor Cooper Scholarship.

The Corson Scholarships. Endowed in honor of Bishop Fred P. Corson and Frances B. Corson by the Wyoming Conference of The United Methodist Church. Awarded to United Methodist students from the Wyoming Conference.

The Nathan Dodson Cortright Memorial Scholarship. Endowed by Mrs. Emma Cortright Keen. Awarded to a student preparing for the ministry.

The Charles A Dana Scholarships. Established by The Charles A. Dana Foundation. Approximately 30 renewable scholarships awarded annually to members of the sophomore, junior, and senior classes. A Dana scholar who does not qualify for need-based aid receives a \$100 award; those who are aid recipients receive a Dana Scholarship in the amount of \$100 greater than the grant which would normally be awarded in the aid package. Dana Scholarships are among Dickinson's highest honors and are awarded on

the basis of superior academic achievement and demonstrated leadership in the College community.

The William K. Dare Honor Scholarship. Endowed by Lemuel T. Appold, Esq. 1882. Awarded to that male student of the freshman, sophomore, or junior class who has attained the highest scholastic average in the work of the previous year.

The Mr. and Mrs. Robert B. Davies Scholarship. Awarded to United Methodist students from Schuylkill County, Pennsylvania.

The S. Adelbert Delude Scholarship. Preference given to a student from New York.

The Dickinson College Fraternity Scholarships. Endowed by the alumni of the local chapters of three national fraternities represented on campus: Kappa Sigma, Phi Kappa Sigma, and Sigma Chi. The annual income from each of these separate fraternity funds is awarded with preference given to active members of the respective fraternities. The College makes available funds equal to the amount of this scholarship for female students eligible for financial aid.

Barbara J. Dixon Scholarship. Endowed by Mr. and Mrs. Robert Dixon in memory of their daughter, Barbara J. Dixon, Class of 1971. Preference given to an upperclassman majoring in English.

The Lucy Holt Doney Memorial Scholarship. Endowed by Jean, Hugh, and John Doney.

The Smith Ely Scholarship. Preference given to students from New York City and vicinity.

The William Schuyler Eves Memorial Scholarship. Endowed by William Schuyler Eves. Preference given to needy and worthy male students who are members of the Jenkintown (Pa.) Methodist Church. The College makes available funds equal to the amount of this scholarship for female students eligible for financial aid.

The Farmer's Trust Company Scholarship. Preference given to the son or daughter of an

employee of the Farmer's Trust Company, Carlisle, Pa.

The Robert M. Ferguson, Jr. Memorial Scholarship. Endowed by Grace C. Vale.

The First Presbyterian Church, York, Pennsylvania Scholarships. Endowed by Henry Logan '10 to assist in educating qualified students from the Church or Presbytery.

The E. Harold and Florence F. Frantz Scholarships. Established by E. Harold and Florence F. Frantz. Preference given to freshmen who may be renewed as upperclassmen if satisfactory progress is made. Selection is based on evidence of sound character and intellectual ability.

The Freeman Scholarship. Endowed by Frank A. Freeman, Esq.

The Melville Gambrill Memorial Scholarship. To provide for young men preparing for the ministry. The College makes available funds equal to the amount of this scholarship for female students eligible for financial aid.

The Dr. and Mrs. Forney P. George Scholarships. For students demonstrating a commitment to human values and the delivery of medical services on a humanistic basis who are preparing to enter the medical professions, including dentistry.

The John Gillespie Memorial Scholarship. Endowed by Miss Kate S. Gillespie as a memorial to her father.

The M. Brandt Goodyear Scholarship.

The Edna Grace Goodyear Memorial Scholarship. Endowed by Samuel M. Goodyear, a former Trustee of the College. Preference given to students from Carlisle, Pa.; secondly, to students from Cumberland County, Pa.; and lastly, other eligible students.

The John H. Hackenberg Scholarship. Awarded to a student preparing for the United Methodist ministry.

The Herbert G. and Nelle P. Hamme Scholarship. Preference given to foreign students studying at Dickinson College.

The Haverstick and Snavely Scholarship.

Lester S. Hecht Scholarship.

The J. Fred Heisse Scholarship. Endowed by his brother, E.W. Heisse. Preference given to preministerial students from the Baltimore Conference of the United Methodist Church or other needy and worthy students.

The Honorable E. Foster Heller Scholarship. Endowed by Anna C. Halsey. Awarded to male students requiring funds to continue their Dickinson education. The College makes available funds equal to the amount of this scholarship for female students eligible for financial aid.

John H. Hopkins Scholarship. Endowed by the daughters of Dr. John H. Hopkins in his memory. Awarded annually to a chemistry major with an excellent academic record and financial need.

The Horn Scholarship. Endowed by J. Edward Horn.

The Bruce Hughes Scholarship.

The William Albert Hutchison Memorial Scholarship. Endowed by the Conway Hall Alumni Association. Preference given to descendants of former students of Conway Hall.

The International Business Machines (IBM) Scholarship. Endowed by IBM. Preference given to students majoring in science.

The Benjamin D. James Scholarships. Established by Mr. and Mrs. Robert J. Wise in honor of Dr. James who is Richard V.C. Watkins Professor Emeritus of Psychology and Education. During his 36 years as a member of the faculty, Dr. James also held appointments as dean of admissions and dean of students at Dickinson.

The Charles H.B. Kennedy Memorial Scholarship. Endowed by members of the "D" Club.

The Kindle Foundation Scholarship. Endowed by the Kindle Foundation.

The Leona B. Kline and Sidney D. Kline Scholarship. Established by Sidney D. Kline of the Class of 1924 and Leona Barkalow Kline of the Class of 1927. Awarded to students who reveal a

dedicated purpose in preparing themselves for constructive citizenship following the completion of their education. First preference given to students who have formally declared their intent to pursue a profession of ordained ministry in a Protestant religious denomination. Others to whom the scholarship may be awarded are students who declare an intention to pursue post-graduate level education through which they will qualify for careers as doctors of medicine, surgeons, health service specialists, or any post-graduate level which would lead to a social benefit to the economy of the public.

The David R. Sieber—Irving E. Kline—Mable Sieber Kline Scholarship.

The Creedin S. and Dorothy W. Kruger Scholarship Fund. Established by Creedin S. and Dorothy W. Kruger of the Class of 1928. Preference given to students who are residents of the Carlisle area.

The Harry D. Kruse Scholarship. Endowed in memory of Dr. Kruse, a member of the Class of 1922, by his wife and sons. Awarded to students exemplifying high standards of moral conduct and displaying exceptional intellectual potential and attainment.

Lafayette Avenue Presbyterian Church, Brooklyn, New York, Scholarship. Endowed by Henry Logan '10 to assist in educating a qualified student from the Church or Presbytery.

The Merkel Landis Scholarship. Preference given to students from Carlisle, Pa.; secondly, to students from Cumberland County, Pa.; and lastly, other eligible students.

The Frederick M. Lawrence Memorial Scholarship.

The Samuel A. Lewis Scholarship. Endowed by a bequest from the estate of Samuel A. Lewis, a Dickinson alumnus, to benefit male students at Dickinson. The College makes available funds equal to the amount of this scholarship for female students eligible for financial aid.

The Albanus Charles Logan Memorial Scholarship. Endowed by Maria Dickinson Logan. Pref-

erence given to a male graduate of Germantown High School. The College makes available funds equal to the amount of this scholarship for female students eligible for financial aid.

The Henry Logan Scholarships. Endowed by Henry Logan of the Class of 1910.

The David W. Long Applied Music Scholarship. Endowed by the Long family, alumni, and friends in memory of David W. Long. Given to provide lessons in applied music for outstanding student musicians in their junior or senior year.

The George Lane Low Scholarship. Endowed by Miss Elizabeth A. Low '91, in memory of her brother, to aid deserving students, with preference to be given to students residing in Columbia County, Pennsylvania.

The John B. Lucas Scholarship. To assist a freshman student from Wilmington, Delaware. Preference given to the son or daughter of an employee of the Penn-Central Company or a former employee of the Atlas Powder Company, now a division of I.C.I. Americas, Inc.

The Richard H. McAndrews Scholarship. Endowed by the wearers of the "D" in memory of Associate Professor Emeritus R.H. McAndrews of the Department of Physical Education.

The Bessie McCullough Memorial Scholarship. Endowed by her husband.

The Charles Watson McKeehan Scholarship. Endowed by Mary A. McKeehan and Charles L. McKeehan in memory of their husband and father, a Trustee of the College, 1879-95.

The Barbara Snyder McRea Scholarship. Endowed by a bequest from the estate of Sarah McRea Chapman Jones of the Class of 1921.

The Anthony Mach Memorial Scholarship. Preference given to a student entering the final year of studies in Economics.

C.H. Masland & Sons Scholarships. Preference given to sons and daughters of employees of C.H. Masland & Sons, Carlisle, Pa. and then to residents of Carlisle or adjacent territory, and lastly to other eligible students.

The May Memorial Association Scholarship. Endowed in memory of Joseph M. and Aimee L. May. Preference given to students from the Greater New York area.

The Bishop William Vernon Middleton Scholarship. Endowed by the Claude Worthington Benedum Foundation. Preference given to students from West Virginia and Western Pennsylvania.

The Arthur Milby Scholarship. Endowed by Miss Mary R. Burton. Preference given to young men preparing for the ministry. The College makes available funds equal to the amount of this scholarship for female students eligible for financial aid.

The Theodore F. Miller Scholarship.

The William Van Axen Miller Memorial Scholarship Fund. Established in 1968 by his parents, Mr. and Mrs. Edward A. Miller.

The Roy W. Mohler Scholarship. Endowed by his former students at Jefferson Medical School and others. Given in the second semester of the senior year to that student with the greatest need who has been accepted for admission to medical school the following year.

The Monaghan Presbyterian Church, Dillsburg, Pennsylvania, Scholarships. Endowed by Henry Logan '10 to assist in educating qualified students from the Church or Presbytery.

The Thomas Montgomery Scholarship. Endowed by Colonel Robert H. Montgomery, L.L.D., in memory of his father.

The Charles Nisbet Memorial Scholarship. Endowed in the memory of Dr. Charles Nisbet, first President of Dickinson College, by his descendants.

The Marlin E. Olmsted Scholarships. Endowed by Mrs. Vance C. McCormick in memory of her husband, an honorary alumnus of the College.

The John B. Peters Memorial Scholarship. Endowed by the Peters family and friends in memory of John B. Peters, Class of 1922 and Life Trustee. Preference given to students of agricultural background or purpose.

The Charles E. Pettinos Scholarship. Endowed by the Charles E. and Joy C. Pettinos Foundation in memory of Mr. Pettinos, a former College trustee.

The Arthur M. Prinz Memorial Scholarship. Endowed by Mrs. Arthur Prinz, colleagues, alumni, and friends; for students majoring in economics.

The Reader's Digest Foundation Scholarship.

The Ernest C. and Mima J. Reisinger Scholarship. Endowed by Reisinger Brothers, Inc., Carlisle, PA.

The Robert F. Rich Memorial Scholarships. Endowed by Robert F. and Patti Rich and the Woolrich Woolen Mills with preference given to children of Woolrich Woolen Mills employees.

The Horace Elton Rogers Scholarship. Endowed by his friends in honor of his devoted service to his alma mater. Awarded to a student majoring in physical sciences, with preference given to young men and women majoring in chemistry.

The Howard Lane Rubendall Senior Scholarship. Established by Wheel and Chain and Omicron Delta Kappa in honor of Dr. Howard Lane Rubendall, president of the College, 1961-75. Endowed by students and friends. Awarded annually, at the discretion of the president, to a rising senior on the basis of superior academic achievement and demonstrated leadership in the college community.

The Rubendall Scholars Program. Established in 1975 in honor of Dr. Howard Lane Rubendall, president of the College, 1961-75. Endowed by friends and alumni in recognition of his commitment to students. Rubendall Scholarships are available to incoming freshmen and may be held by a student throughout his or her career at the College. Awarded on the basis of outstanding ability with first consideration to applicants who have the greatest financial need.

The Edgar H. Rue Memorial Scholarship Fund. Endowed by a friend in memory of Edgar H. Rue, Class of 1913. Awarded to students majoring in fine arts.

The Mary Sachs Scholarship. Endowed by the trustees of the Estate of Miss Mary Sachs.

The Wilmer Wesley Salmon Scholarship. Endowed by Cora Belle Salmon in memory of her husband, a trustee of the College, 1913-31.

The Friedrich Sandels Scholarship. Endowed by a gift from Friedrich Sandels, Professor Emeritus of German, for students in the Humanities.

The Andrew C. Schaebler Foundation Scholarship. Endowed by the Andrew C. Schaebler Foundation of Steelton, Pa. Awarded annually to a student who demonstrates financial need and academic ability and who has graduated from a high school in one of the following Pennsylvania counties: Adams, Cumberland, Dauphin, Franklin, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Northumberland, Perry, or York.

The Valerie Schall Scholarship. Preference given to students preparing for the United Methodist ministry.

The Charles T. Schoen Scholarships.

The Arnold Bishop and Mary Agnes Shaw Scholarship. Endowed by Miss Clara W. Shaw, Mrs. Bertha Shaw Nevling, Mrs. Jeanne Shaw Bailey, Calvin Bishop Shaw, and Charles M. Shaw.

The Charles M. Shope Scholarship. Endowed by a bequest from the estate of Wilda S. Shope of the Class of 1921. Awarded to students majoring in the Division of Sciences.

The Emma R. Shope Scholarship. Endowed by a bequest from the estate of Wilda S. Shope of the Class of 1921. Awarded to students majoring in the Department of English.

The Wilda S. Shope Scholarship. Endowed by a bequest from the estate of Wilda S. Shope of the Class of 1921. Awarded to students majoring in the Department of Classical Studies.

The Paul and Ruth Smith Scholarship.

The James Ross Snowden Scholarship. Endowed by Mary T. Snowden Stansfield in mem-

ory of her father. Preference given to a student pursuing a legal career.

The Mary Ann Ocker Spital Scholarship. Preference given to a student preparing for the ministry or a related career.

The William M. Stauffer Scholarship.

The Captain John Zug Steese Scholarship. Endowed by Mrs. Anna Zug Schaeffer Steese. Given to an upperclassman who has excelled in mathematics and in service to the College.

The J. William and Helen D. Stuart Scholarship. Endowed by Mr. and Mrs. Stuart to provide financial assistance to deserving and needy students at Dickinson College.

The Alfred Swan Music Scholarship. Endowed by Dr. Jane Swan and Dr. and Mrs. Truman Bullard in memory of Alfred Julius Swan, composer, scholar, and teacher; to provide lessons in applied music for outstanding student musicians.

Ruby R. Vale Scholarship. Permanently endowed scholarship from the Ruby R. Vale Foundation, established as a memorial to Ruby R. Vale, Class of 1896, who was a trustee of Dickinson College from 1917 until his death in 1961.

The Martin Van Blarcom Scholarship. Preference to be given to a resident of West Chester County, New York.

The Moses Van Campen Chapter D.A.R. Scholarship. Endowed by Miss Elizabeth A. Low. Preference given to students from Columbia County, PA or from adjacent counties.

The Julia Van Dusen Scholarship. Endowed by Henry Logan '10. Preference given to residents of the Greater New York City area.

Edna Carol Walton Scholarship. Endowed in memory of Edna Carol Walton, who died while a student at Dickinson; established through her mother's will.

The Albert and Naomi Watson Scholarship. Preference given to a student from Carlisle.

The M. William Wedell Scholarship. Endowed by Meta Hofer in memory of her brother.

The M. Helen Lehman Whitmoyer Memorial Scholarship. Endowed by Raymond B. Whitmoyer '13 in memory of his wife.

The Ella Stickney Willey Scholarship.

The Annie Windolph Scholarship. Awarded to a student or students preparing for a career in dentistry.

The Professor Herbert Wing, Jr. Scholarship. Endowed in memory of Prof. Herbert Wing by fellow faculty members and by his son and daughter-in-law, Herbert G. '48 and Doris '45 Wing.

The Robert J. and Joanne Hardick Wise Scholarships.

The Reverend William Wood Scholarship. Endowed by Miss Sarah Wood.

The Helen Kisner Woodward Scholarships. Endowed by Helen Kisner Woodward '08.

The Hugh B. Woodward Scholarships. Endowed by the Hugh B. Woodward '08 and Helen K. Woodward '08 Trust.

The Emmeline Matilda Van Rensselaer Yard Memorial Scholarships. Endowed by John L. Yard, in memory of his wife. Preference given to students preparing to enter the ministry.

The Blanche G. and Henry L. Yeagley Scholarship. Endowed by Dr. and Mrs. Henry L. Yeagley. Awarded to students majoring in physical sciences who demonstrate financial need, scholastic achievement, and strength of character. Preference given to students majoring in physics and astronomy.

The Charles K. Zug Memorial Scholarship. Endowed by Lemuel Towers Appold, Esq. 1882 in memory of Charles K. Zug 1880, a trustee of the College.

Loan Funds

The Cornelia C. Thumm Fund

The American Bankers Association Foundation for Education in Economics Loan Scholarship.

The Emily May Phelps Atwood Loan Fund. Established by her parents, Mr. and Mrs. Andrew H. Phelps.

The Board of Education of the United Methodist Church Student Loan Fund. For members of that Church.

The Central Pennsylvania Conference Loan Fund.

The Emergency Loan Fund. Administered by the Dean of Educational Services.

The Clara Riegel Stine Fund. Used to assist students studying for the ministry of The United Methodist Church.

The Maria Elizabeth Vale Student Self-Help Fund. Endowed by Ruby R. Vale, Esq. '98 in memory of his daughter.

The Mary A. Wilcox Memorial Fund. Endowed by A. Dorothea Wilcox.

Students of the College may be eligible for other scholarship and loan funds which are not administered by the College. Information concerning all loan opportunities may be obtained from the director of financial aid or from the treasurer of the College.

Central Pennsylvania Consortium

The Central Pennsylvania Consortium (Dickinson, Franklin and Marshall and Gettysburg colleges) was formed in 1968 in order to provide an opportunity for exchange of educational ideas and information among faculty, administrators, and students of the cooperating institutions. Through joint action, means have been found to strengthen and broaden existing programs, and to offer a number of worthwhile cooperative programs that could not be undertaken by a single institution. Areas of cooperation include faculty development, student and faculty exchange, an urban semester program,

study abroad, specialized academic courses, library development, and administrative sharing.

Through the Central Pennsylvania Consortium, the member colleges have found a vehicle for engaging in cooperative education and research activity—loosely or tightly structured as the program demands, and without impinging upon the autonomy of any of the participating institutions—which build upon their complementary strengths while also enabling them to develop new thrusts in concert. The central office of the Central Pennsylvania Consortium is housed on the Dickinson College campus. The CPC Director is responsible to a three-member board of directors, composed of the presidents of the three consortium colleges, and works cooperatively with the Consortium Council of Academic Deans in developing programming.

The National Council on Premedical Education

The National Council on Premedical Education established in 1984 underscores the College's dedication to the liberal arts and premedical study. The council, composed of major thinkers and leaders in medical education, was formed to advise the trustees, administration, faculty, and students on issues vitally affecting the undergraduate preparation of students for medical school and for life as physicians. The council also will explore current programs and future directions at Dickinson to develop a "liberal arts oriented" model for premedical study.

Chairman: Samuel Alston Banks, Ph.D., President of Dickinson College; former chairman, Division of Social Sciences and Humanities, University of Florida College of Medicine.

Lewis Thomas, M.D., Chancellor of Memorial Sloan-Kettering Cancer Center; author of *Lives of a Cell* (winner of the National Book Award),

The Medusa and the Snail, The Youngest Science: Notes of a Medicine Watcher, and Late Night Thoughts on Listening to Mahler's Ninth Symphony. Baruch S. Blumberg, M.D., Nobel Laureate for Physiology of Medicine, Associate Director for Clinical Research of the Institute for Cancer Research, Fox Chase Cancer Center, and University Professor of Medicine and Anthropology, University of Pennsylvania.

Steven Muller, Ph.D., President of the Johns Hopkins University; Chairman of the Association of American Medical Colleges Panel to Review and Appraise the General Professional Education of the Physician and College Preparation for Medicine.

Lewis W. Bluemle, Jr., M.D., President of Thomas Jefferson University and Honorary Professor of Medicine at Thomas Jefferson University.

Leighton D. Cluff, M.D., Executive Vice President of Robert Wood Johnson Foundation; former Chairman, Department of Medicine, University of Florida.

Richard C. Reynolds, M.D., Dean of the University of Medicine and Dentistry of New Jersey/Rutgers Medical School and acting Executive Vice President of the University of Medicine and Dentistry of New Jersey.

Joanne Trautmann Banks, Ph.D., Professor of Humanities and English, Pennsylvania State University Colleges of Medicine and Liberal Arts; founder of the field of literature and medicine.

Edmund D. Pellegrino, M.D., Director of the Joseph and Rose Kennedy Institute of Ethics and John Carroll Professor of Medicine and Medical Humanities, Georgetown University; former President, The Catholic University of America.

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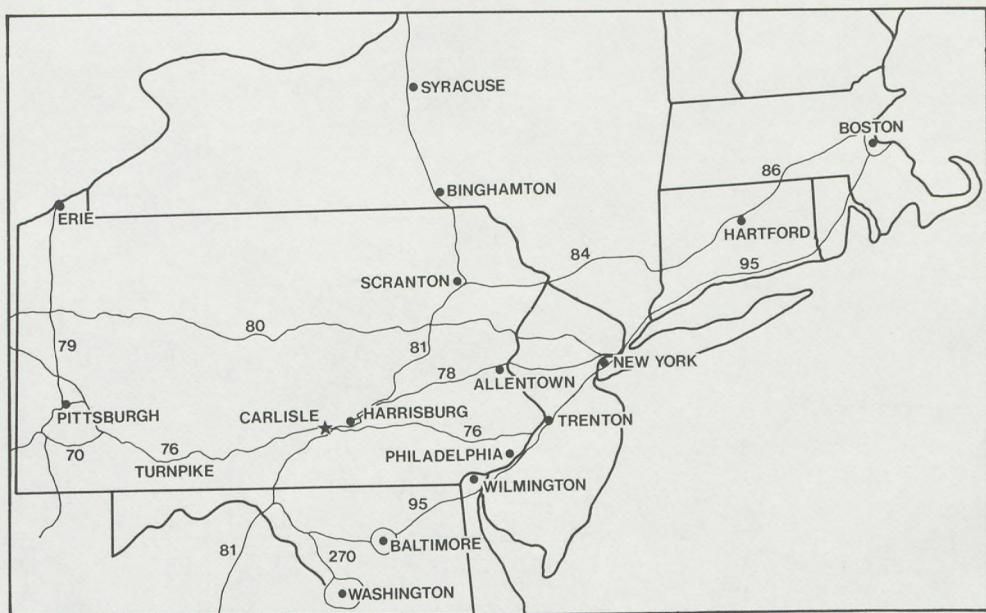
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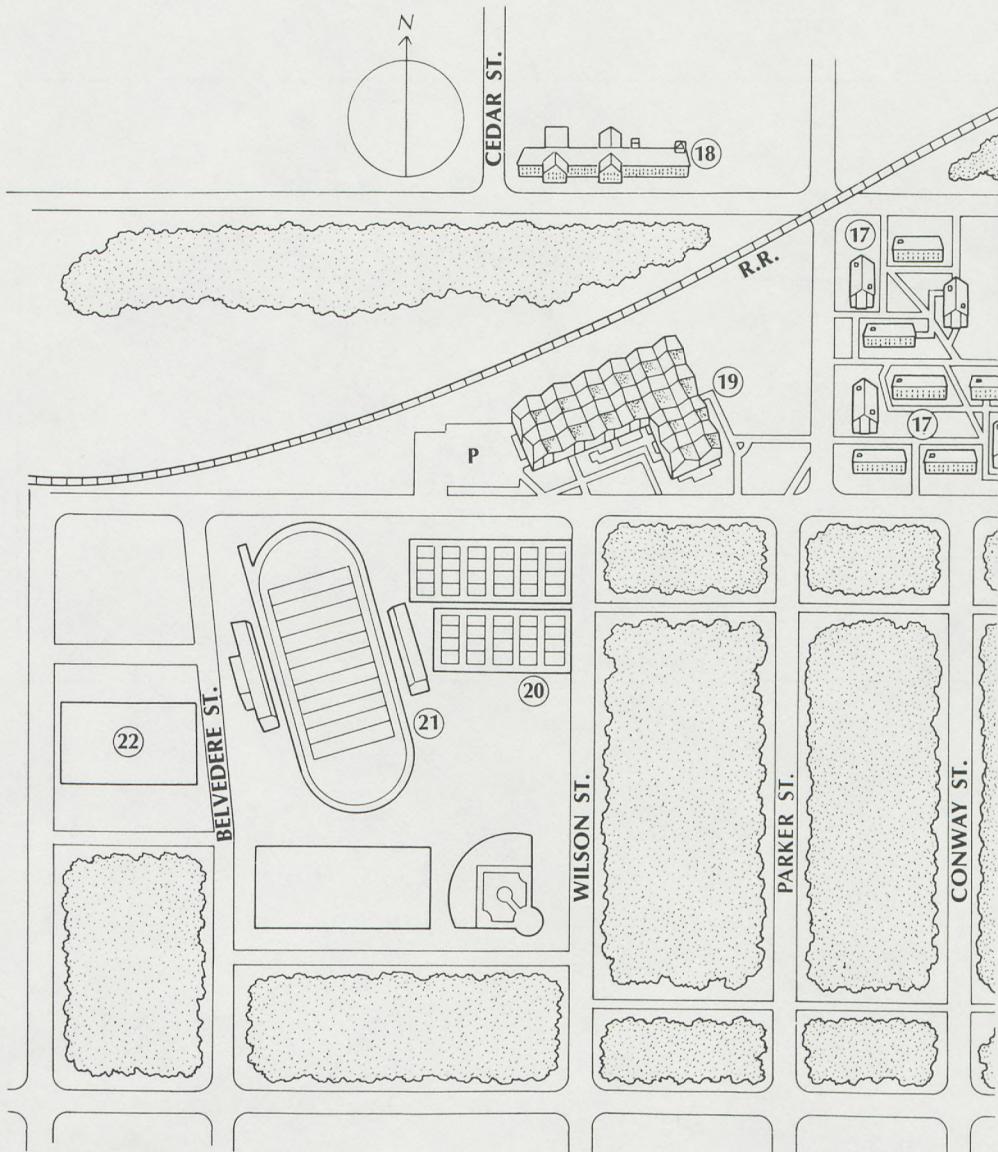
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How To Get To Dickinson

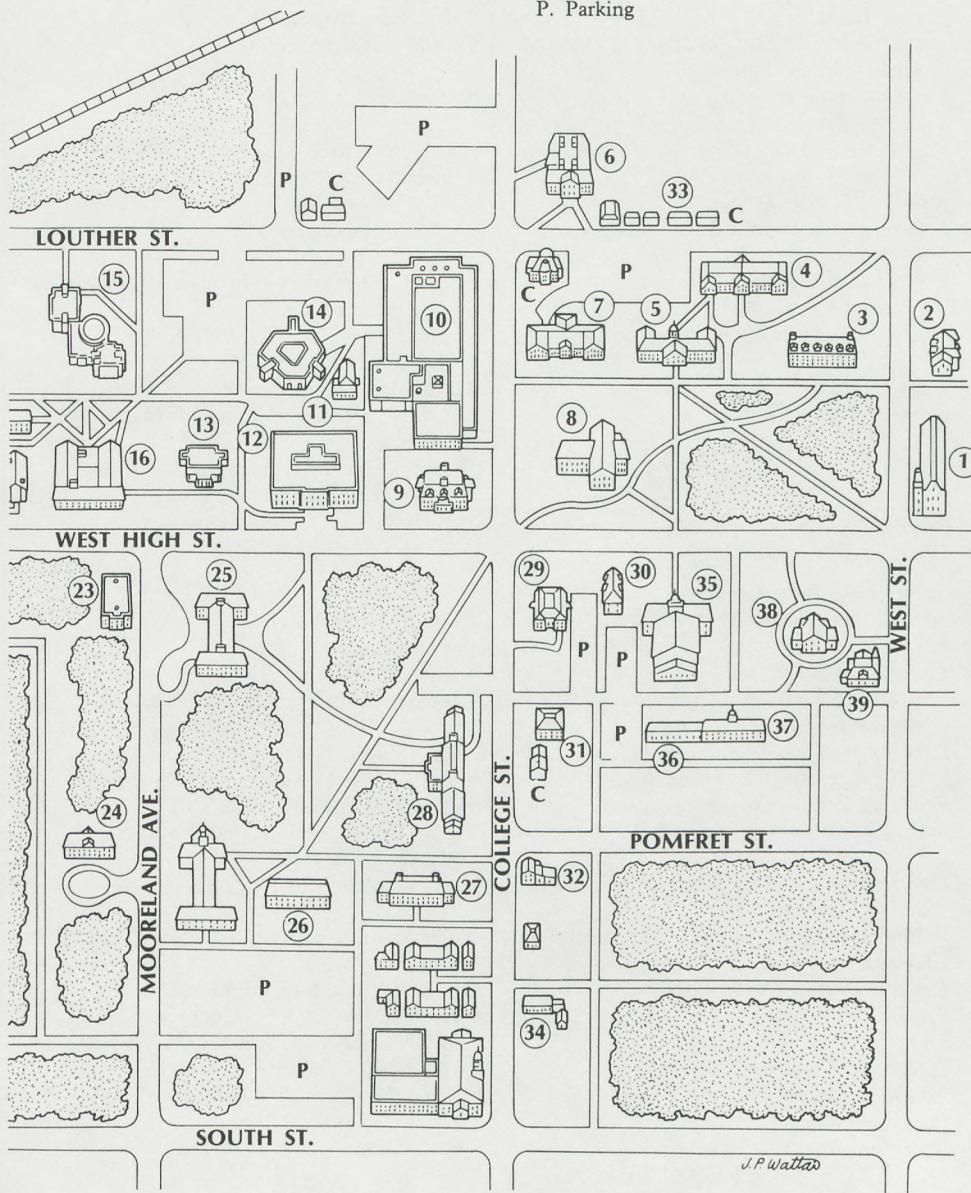


Map Legend

1. Denny Hall
2. Stuart House
3. Bernard Center
4. Jacob Tome Scientific Bldg.
5. West College
6. Dana Hall of Biology
7. Althouse Science Bldg.
8. Bosler Hall
9. Biddle House
10. Holland Union Bldg.
11. Montgomery House
12. Spahr Library
13. Media Center
14. Anita Tuvin Schlechter Auditorium
15. Kisner-Woodward Hall
16. McKenney Hall
17. Quadrangle Residence Halls
18. Buildings and Grounds
19. Kline Life/Sports Learning Center
20. Hays Tennis Courts



21. Herman Bosler Biddle Athletic Field
 22. Athletic Field
 23. Malcolm Hall
 24. Mathews House
 25. Morgan Hall
 26. Witwer Hall
 27. Adams Hall
 28. Drayer Hall
 29. Admissions Bldg.
 30. Sellers House
 31. Todd House
 32. Economics
 33. Faculty-Alumni Club
 34. Strayer House
 35. Weiss Center for the Arts
 36. Communications and Development
 37. South College—Computer Center
 38. President's House
 39. Reed Hall
 C. College Housing
 P. Parking



1984-85 Academic Calendar

Fall 1984 Semester

New Student Orientation Begins	Saturday, August 25
Freshman Seminars Begin	Monday, August 27
Registration	Tuesday, August 28
Convocation	7:30 p.m., Tuesday, August 28
Classes Begin	Wednesday, August 29
Last Day to Add/Drop Courses or Change To/From Pass/Fail	Tuesday, September 11
Last Day to Change in Level for Languages and Math Courses	Friday, September 28
Mid Term Pause*	
Roll Call Grades Due	
Last Day to Withdraw from a Course with a "W" Grade	5 p.m., Thursday, October 11 to 8 a.m., Tuesday, October 16
Preregistration for the Spring 1985 Semester	by NOON — Tuesday, October 16
Thanksgiving Vacation	Tuesday, November 6
Classes End	Monday, November 5 through Monday, November 12
Reading Period Days	5 p.m., Friday, November 16 to 8 a.m., Monday, November 26
Final Examinations	Wednesday, December 12
All Grades Due	Thursday, December 13 and Friday, December 14
	Saturday, December 15, Monday through Friday, December 17-21
	by NOON — Thursday, January 3

Spring 1985 Semester

New Student Orientation	Monday, January 21
Registration	Tuesday, January 22
Classes Begin	Wednesday, January 23
Last Day to Add/Drop Courses or Change To/From Pass/Fail	Tuesday, February 5
Last Day to Change in Level for Languages and Math Courses	Friday, February 22
Roll Call Grades Due	by NOON — Monday, March 11
Spring Vacation	5 p.m., Friday, March 15 to 8 a.m., Monday, March 25
Last Day to Withdraw from a Course with a "W" Grade	Monday, April 8
Preregistration for the Fall 1985 Semester	Monday, April 1 through Monday, April 8
Classes End	Friday, May 3
Reading Period Days	Monday, May 6 and Tuesday, May 7
Final Examinations	Wednesday through Saturday, May 8-11, and Monday and Tuesday, May 13-14
Senior Grades Due	by NOON — Wednesday, May 15
All Other Grades Due	by NOON — Tuesday, May 21
Baccalaureate	10:30 a.m., Sunday, May 19
Commencement	3 p.m., Sunday, May 19

*COLLEGE WILL REMAIN OPEN



DICKINSON COLLEGE
Carlisle, Pennsylvania 17013-2896
Founded 1773
Coed, Liberal Arts, Independent
1,776 Enrollment